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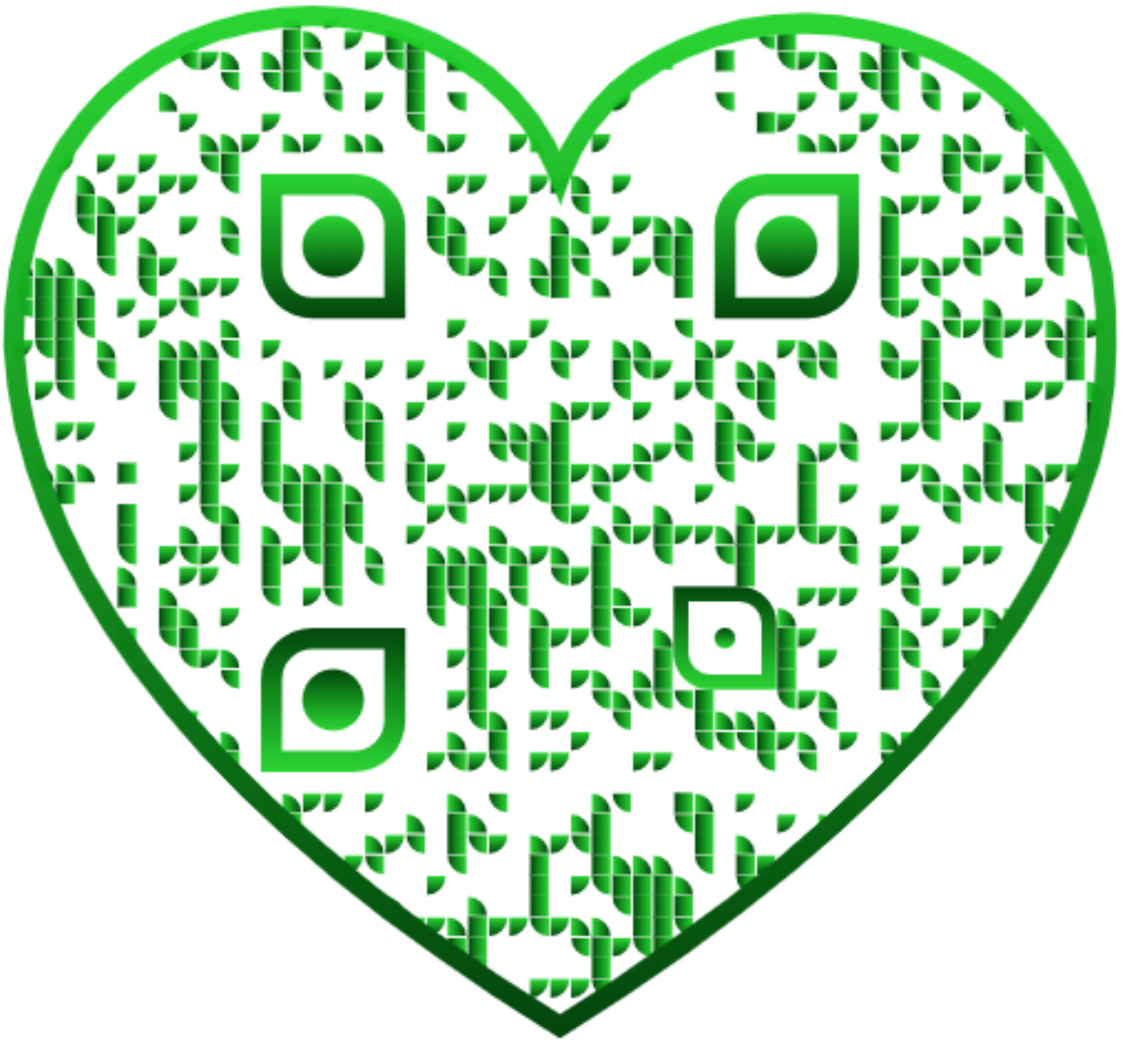

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HEADPHONE AMPLIFIER
Ferrum Audio OOR

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Ferrum **HYPSOS** Hybrid Power System

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• 5 ~ 30V DC out • 6A/80W • 21,7 x 20,6 x 5,0 cm •

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Since then, iFi has won three more EISA Awards – for the xDSD in 2018, the ZEN DAC in 2020, and now the xDSD Gryphon, surely the most versatile and accomplished portable DAC/amp on the planet. Four prestigious EISA Awards for a company just 10 years young; that's unprecedented.

As we journey through the next 10 years of sonic discovery, we say to our customers: enjoy the ride! And, with a golden glint in our eye, we say to our competitors: mind the gap!

Music
makes **life** better

2012

iFi's journey begins

2014

iDSD

2018

xDSD

2020

ZEN DAC

2022

xDSD GRYPHON

iFi's journey continues

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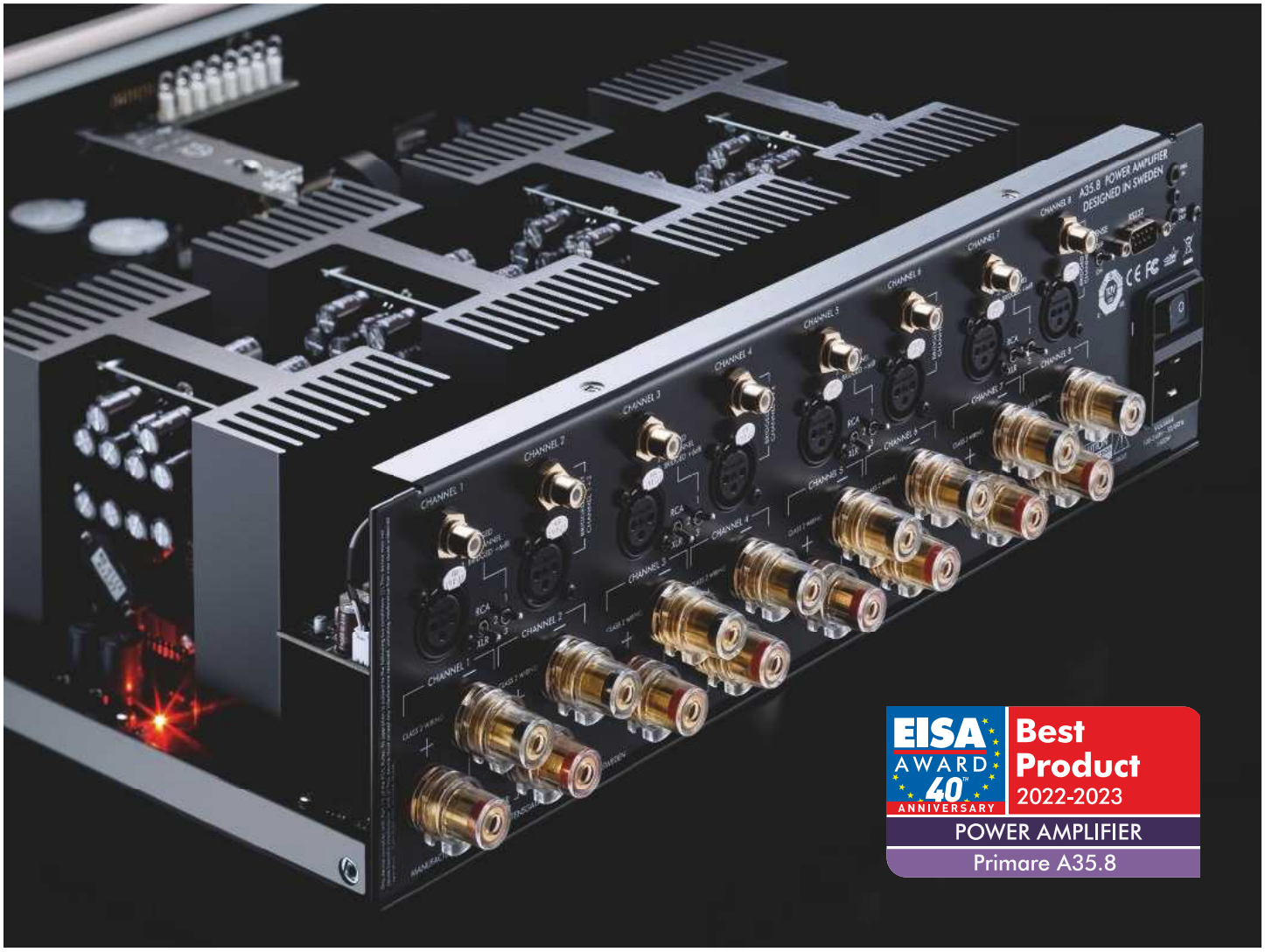
PRIMARE



Any way you want it
That's the way you need it
Any way you want it...

Primare's award winning A35.8 eight channel fully bridgeable amplifier offers configuration options for virtually any audio system.

▸ Turn the page to see layout diagrams that illustrate this system building versatility.

Journey, "Any Way You Want It," songwriters: Neal J Schon / Stephen Ray Perry, lyrics © BMG Rights Management, Universal Music Publishing Group, Words & Music A Div Of Big Deal Music LLC

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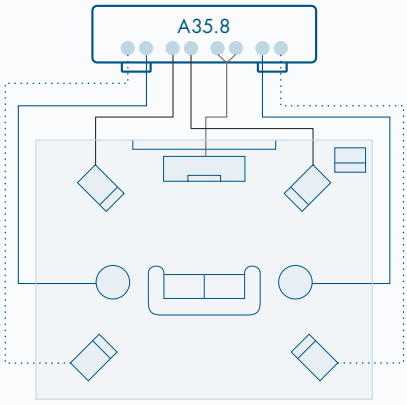
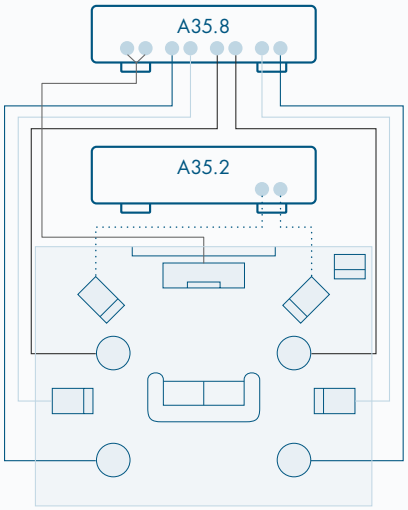
Not only is the A35.8 the most powerful amplifier Primare has ever built, but it is also the most flexible as a result of the ability to bridge each pair of its eight channels to mono.

The bridging capabilities of the A35.8 allow it to be used in a variety of system configurations, with or without the addition of our A35.2 stereo amplifier, to suit practically any system requirements.

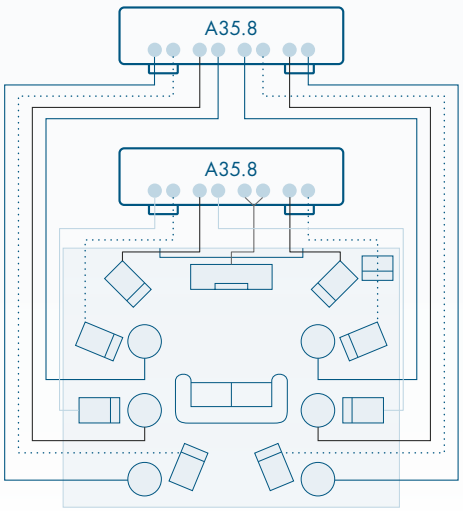
5.1.2 DOLBY ATMOS/DTS:X SYSTEM



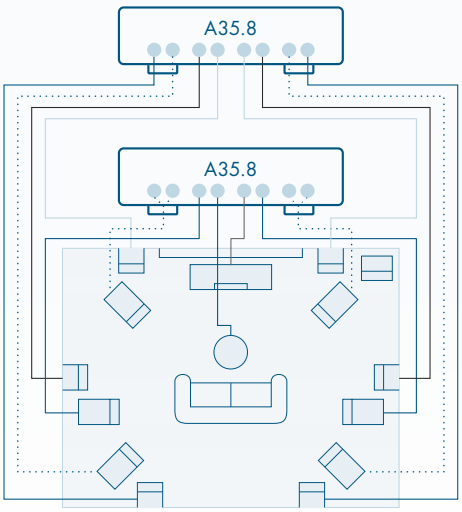
5.1.4 ATMOS/DTS:X SYSTEM



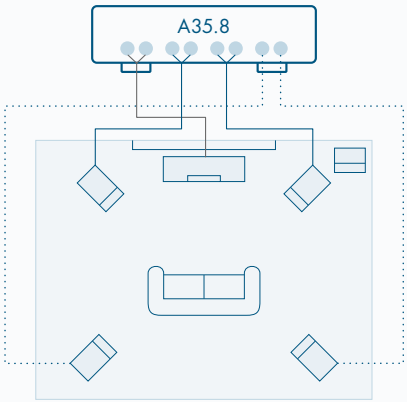
9.1.6 ATMOS/DTS:X SYSTEM



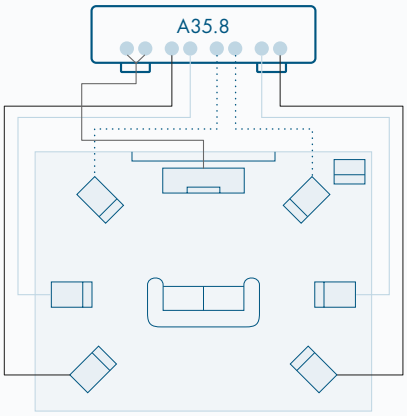
13.1 AURO 3D SYSTEM



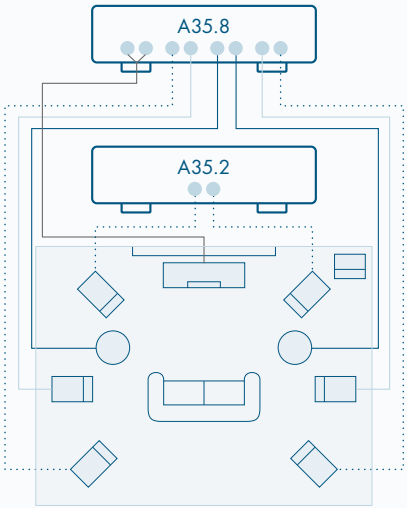
5.1 DOLBY/DTS SYSTEM



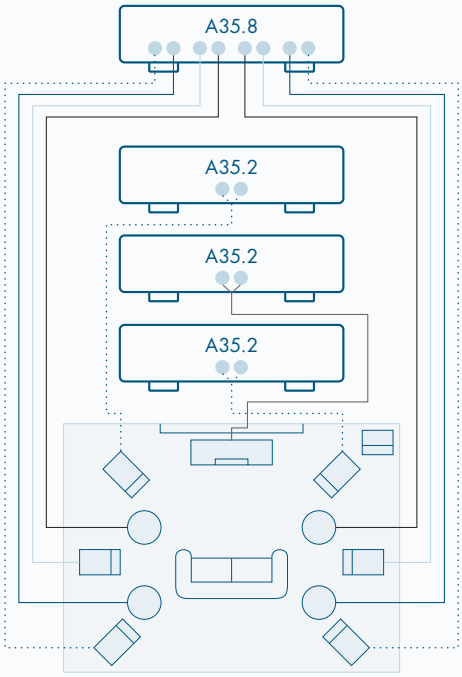
7.1 DOLBY/DTS SYSTEM



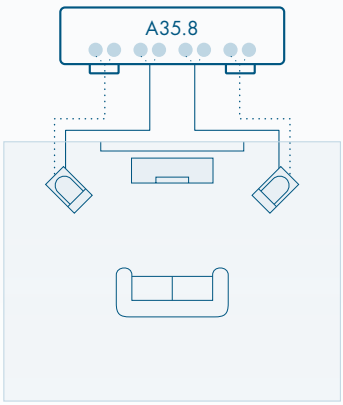
7.1.2 ATMOS/DTS:X SYSTEM



7.1.4 HIGH-POWER ATMOS/DTS:X SYSTEM



2.0 BI-AMPED STEREO SYSTEM



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RIGHT: Seen in silver livery, SME's Model 60 sets the standard in vinyl-playing design (p39)

ABOVE: Steampunk meets fully-featured all-analogue audio in the RA180 integrated from HiFi Rose. We crank up the volume on p83

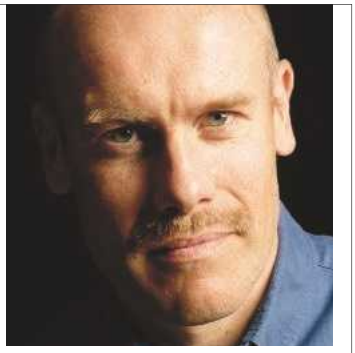
MUSIC: Mobile Fidelity's reissue of Jeff Beck's *Truth* is our choicest slab of vinyl (p154) while *Ebb Tide* by the Gidon Nunes Vaz Quartet tops our high-res downloads in DSD512 and DXD (p158)

RIGHT: *HFN* is the UK's representative of EISA's Hi-Fi Expert Group. Editor Paul Miller took over as EISA's President in June 2016 and was re-elected in 2021

Welcome, audiophiles, enthusiasts, music fans and lovers of all things luxury to our annual Yearbook. However troubling the local and world news headlines, it's reassuring to know there's absolutely no shortage of global goodwill when it comes to audio goodies, as *Hi-Fi News & Record Review* celebrates the hardware that sparked our senses and the music that stirred our souls throughout 2022.

Pour yourself a glass of what you fancy, sit back and savour our annual festival of the most vivacious vinyl-playing hardware, massive monoblocks, tube integrateds and network-connected Class D divas. We've some delicious digital players, DACs, and loudspeakers of every size and stripe. While leafing through the jewels of high-end audio featured in this bumper 188-page collection, I hope you'll also be tempted to seek out some new sounds from our choice of heavyweight LPs, CDs and 'virtual' digital media. Hi-fi is, after all, our window on the world of music.

But while busily exploring audio's vibrant evolution, we'll not forget to look back and commemorate a few vintage audio heroes that helped shape hi-fi's impressive pedigree.



Hi-Fi News has been there from the beginning of course... Launched in 1956, *HFN/RR* is the world's oldest specialist 'hi-fi' magazine, even pre-dating the stereo revolution itself! It's fair to say we are woven into the very fabric of the high-quality audio scene, having explored and catalogued every step in hi-fi's journey for the last 66 years.

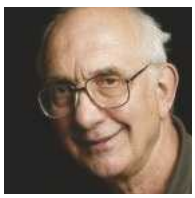
We've stood the test of time as the audiophile's reference – every month, we independently research, lab test and audition the newest high-end hi-fi from established brands as well as the new kids on audio's block.

> 'The *HFN* Yearbook is your go-to guide for the world's finest hi-fi'

So if you want to read the first in-depth tests of the world's finest hi-fi then why not join us on the adventure. Who knows – next month you may discover that once-in-a-lifetime upgrade you've always dreamed of!

PAUL MILLER GROUP EDITOR

HI-FI NEWS' EXPERT LINE UP: THE FINEST MINDS IN AUDIO JOURNALISM BRING THEIR EXPERIENCE TO BEAR ON ALL AREAS OF HI-FI & MUSIC



BARRY FOX
Investigative journalist supreme, Barry is the first with news of the latest developments in hi-fi and music technologies

PETER QUANTRILL
Peter Quantrill has been writing about music for magazines and record labels for 30 years. He is *HFN*'s master of the classics

KEN KESSLER
is a long-serving contributor, luxury goods writer and champion for the renaissance in valves and reel-to-reel tape

MARK CRAVEN
Editor of our sister title *Home Cinema Choice*, Mark's passion for music extends from stereo to multichannel and Dolby Atmos

TIM JARMAN
Co-author of a major hardback on historic B&O equipment, Tim continues to research, repair and write about vintage hi-fi for *HFN*

ANDREW EVERARD
has reviewed hi-fi for over 30 years and is still effortlessly enthusiastic about new technology, kit and discovering new music

STEVE SUTHERLAND
worked on *Melody Maker* and then edited *NME* from 1992-2000, the Britpop years. Steve brings a unique slant to our Vinyl Release pages

Florida Audio Expo 2022

Words: **Doug Schneider** & **Hi-Fi News** Pictures: **Doug Schneider**

Following a highly successful annual show in 2019, the Florida Audio Expo – or FLAX as it is known – was forced to suspend its events in 2020 and 2021 due to the pandemic. But over the weekend of February the 18th this year the doors were thrown open once again as the event returned to the Hilton's Embassy Suites in Tampa, Florida. So, would the current supply-chain issues most manufacturers are experiencing mean a shortage of fresh products at the show?

With a first peek at a new product from Pro-Ject, a revamped amp from across the Mexican border, streamers packing the latest chips, speakers yet to appear in company brochures... the answer was a definite 'No!'. So enjoy a much-missed trip around a hi-fi show floor...

Dual-mono throughout, the s82 streamer from Canadian brand exaSound Audio features Sabre ES9038PRO DACs from ESS Technologies and offers support for digital file resolutions up to 384kHz PCM (with MQA decoding), 352.8kHz DXD and DSD512. With wired/wireless Ethernet connections, the s82 is Roon Ready and can stream via 'Signalyst HQPlayer, UPnP, AirPlay, Bluetooth, and online services Tidal and Qobuz'. *www.exasound.com*

The belt-driven Automat A1 [*HFN* May '22] is the first fully automatic turntable from Pro-Ject Audio Systems. It features a built-in phono preamp and includes an 8.3in aluminium tonearm, an Ortofon OM10 MM cartridge set up at the factory, plus a Connect-it E phono cable. *www.project-audio.com*

Making its world debut was the Horizon DAC from Polish company Lampizator. The tube complement comprises one 5U4G, two 6SN7GTs and four EL34s while digital inputs include S/PDIF coaxial (RCA), optical (TosLink), AES/EBU (XLR) and I²S supported on both HDMI and RJ45 ports. *www.lampizator.eu*

The Method 4 from Infigo Audio is a big-ticket DAC with a removable lid, revealing an acrylic window that allows you to safely peer inside. Popular ES9038PRO DACs form the core, with digital inputs spanning S/PDIF coax and Toslink optical, AES/EBU (XLR), and USB-B. The latter supports resolutions up to 768kHz/32-bit LPCM and DSD512. *www.infigoaudio.com*

BAT

"OUTSTANDING!"

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"...an imperious blend of lush looks, audiophile engineering and stellar performance across all musical flavours."

VK-3500 amp, Hi Fi News September 2021

"more delicacy than my ears could process...Musical? Naturalistic? Intimate? Take your pick."

VK-80i amp, Hi Fi News December 2021

"this unashamedly expensive converter gets you closer to the music without you even realising it's doing it. Just let it weave its magic..."

REX 3 DAC, Hi Fi News May 2020

karma
audio-visual

Balanced Audio Technology
balanced.com

Audiojumble, Tonbridge

Words & pictures: **Ken Kessler**

OK, so it wasn't quite as if the Covid pandemic had never happened, but it felt great to see a crowd of audiophiles eager to find some bargains. The first Tonbridge Audiojumble since February 2020 was held in May at the Angel Centre in Tonbridge, and it only took a few seconds for it to sink in that normalcy might return. In the interim, vinyl continued its vertical trajectory, while there was a palpable increase in interest in open-reel tape – apparently, it's not just our imagination. We scored a boxed Revox A77 Mk IV Dolby and one of our best, and least expected, moments was meeting a recent convert to reel-to-reel and keen Instagram poster. To paraphrase Dean Martin talking about Sinatra and Mia Farrow, we have bottles of wine older than him!

Among the more rare open-reel decks was this weekend project, a 60-year-old Revox E36 for £150. Probably the most sensible use for it would be to cannibalise it for spares, as certainly some cosmetic and structural parts were common to the C36, D36 and F36. On the other hand, the E36 was the second-generation stereo Revox, so a resourceful restorer might well be on to a winner.

Among the turntables at the event, there seemed to be a choice of Lencos – perhaps a response to their increasingly 'hot' status, especially the rebuilds from Swiss specialists. This L75 in fine nick was thus a bargain at £125, the price including a Shure M75 cartridge and new idler wheel.

Always coveted by show visitors are Nakamichi cassette decks in reasonable shape, and their desirability is only increasing with what some say is a cassette revival. We saw a few at the show, but this gorgeous Nakamichi 700, launched in 1973, stood out. For many tape fans this is still the best-looking cassette deck of all-time – the £750 ticket reflecting its status.

Cartridges are always easy to find at the show, but how often are they 'new old stock' examples? Exhibitor Gary Wood acquired a supply of absolutely unused Mayware moving-coil cartridges, including the MC-3L, MC-7V, and MC-2V pictured here, selling at prices below that of comparable modern MCs. We would imagine that, had we the time to fully scour the event, we could have found their ideal match: a Mayware Formula 4 tonearm.

AXPONA 2022

Words: **Hi-Fi News** Pictures: **Stereophile**

Taking place on the weekend of April the 22nd at The Renaissance Schaumburg Convention Center in Chicago, the Audio Expo of North America (AXPONA) played host to no fewer than 7498 unique visitors across the 140 exhibition rooms spread out over its multiple floors – not to mention The Record Fair, 'Ear Gear Experience' and marketplace exhibits.

Packed with high-end components from many of the world's most prestigious audio brands, there were product premieres, new faces unveiling precious creations for the first time, and a surprise or two from pedigree brands such as McIntosh as it put its new two-chassis C12000 solid-state/tube preamplifier through its paces. Chicago? It's our kind of town, as Sinatra might say...

The new two-piece C12000 preamp was the star of the show in the McIntosh room. A fully balanced, dual-mono design with an external power supply, it boasts two phono settings with loading, capacitance and resistance able to be changed on the fly via the remote control. The remote also allows you to choose tube or solid-state output. *www.mcintoshlabs.com*

Local importer Upscale Distribution showed the second iteration of the dual-mono Inpol2 Class A integrated amp from Italian company Pathos. A balanced design, the new version sees the switching power supply of the original replaced with a traditional linear PSU. Output is a claimed 45W per channel into 8ohm. *www.pathosacoustics.com*

Fresh from February's Florida Audio Expo [see p22], The Audio Company again showcased Von Schweikert Audio's Ultra 7 speakers. Front-facing drivers comprise three 9in woofers, one 7in midrange, a beryllium tweeter and a ribbon supertweeter. These are joined by a rear-facing ribbon supertweeter and horn-loaded magnesium tweeter. Four VAC Statement 452 iQ monoblocks supplied the juice. *www.vac-amps.com; www.vonschweikert.com*

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S7t, Hi Fi News, April 2022

"Like its S7t sibling, it excels when it comes to mid and high details, resolving the most subtle of musical moments and nailing the feel and tone of instruments...It all sounded wonderfully three-dimensional."
S4b, Hi Fi News, June 2022

"For those who like to close their eyes during listening, the R7ts are heaven sent. Put another way: as Knopfler's Schecter Strat gave way to the piano toward the track's end, I started to well up. It really was that good."
R7t, Hi Fi News August 2022

"Perlisten brings exceptional levels of detail and nuance to movies and music, underpinned by rock-solid lows. Lush looks and outstanding build quality make this series even more of a winner."
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01423 358846 karma-av.co.uk

High End, Munich 2022

Words & Pictures: **Ljubiša Miodragović, Hi-Files magazine**

After a three-year break, the annual Munich High End show finally returned to the MOC Events Center in the heart of the city. One of the most important events in the audio calendar, the four-day fair threw open its doors on the 19th of May with the first two days reserved for distributors and journalists before the general public joined the throng over the weekend.

With 800 brands from more than 40 countries to be found in the numerous halls and atriums of the show's giant exhibition space, not only was the event a welcome opportunity for enthusiasts to renew old friendships but it also brought the prospect of seeing and hearing a large number of components whose premieres were postponed due to the Covid pandemic.

Young polish company HEM currently has just three products selling under its Ferrum brand: the all-analogue OOR headphone amp [top of stack, see p67], ERCO headphone amp/DAC [middle, see p56] and HYPSOS programmable DC power supply [bottom, *HFN* Mar '21]. The ERCO is based around an ESS Sabre ES9028PRO DAC and boasts a custom digital filter. Visitors could hear the set-up through Focal 'phones. *www.ferrum.audio*

Slovenian manufacturer Holbo had a single product on display, the mkII version of its Airbearing turntable with integral linear tracking airbearing arm [*HFN* Aug '20]. A belt-driven design, available in black and white plinth colours, the deck has a DC motor driving a 5kg alloy platter that's supported on a cushion of air. The deck comes with an outboard pump. *www.holbo.si*

One of the most spectacular performances at the show was served up by the Avantgarde Acoustic Trio G3 loudspeakers. The eagerly anticipated successor to the XD series, this system comes in three versions – passive, active and wireless – the wireless model supporting streaming services such as Tidal, Spotify, DLNA, Roon and AirPlay. *www.avantgarde-acoustic.de*

Dynaudio's new generation of active Focus speakers comprises the Focus 50 [pictured here] and Focus 30 floorstanders, plus the Focus 10 standmount. All models employ a 28mm Cerotar tweeter, while 140mm and 180mm-diameter MSP diaphragms are used for the mid and bass drivers. The on-board Class D amps are a collaboration between Focal and Danish company Pascal. As well as built-in adjustable DSP, Dirac Live calibration is also available. The speakers come in high-gloss black and white, walnut and light wood finishes. *www.dynaudio.com*

Prague Audio Video Show

Words & Pictures: **Luboš Horčic, Stereo & Video magazine**

Taking place at the Stages Hotel in Prague, the Audio Video Show returned after a two-year hiatus following the Covid pandemic. Perhaps one of the most pleasing aspects of the event was the increased number of Czech manufacturers in attendance compared with previous years. Many are focused on loudspeaker design, with brands including Xavian and Sroll both drawing admiration as they showed new models.

When it came to electronics, components from McIntosh, Gryphon Audio and D'Agostino Master Audio Systems really drew the crowds, although it was the sense of solidarity and fellowship of all the hi-fi fans and enthusiasts now able to make it to the show that truly made the gathering an event to cherish and remember.

This elegant-looking turntable is the 203 from New Horizon. A belt-drive design with a three-layer chassis, it features a 20mm-thick acrylic platter weighing almost 2kg and is equipped here with the Italian company's new 9in NH95 tonearm, fitted with Audio-Technica AT-91R cartridge. *www.newhorizonaudio.com*

On static display was a pair of Legacy 3210 standmount speakers from French brand Elipson. A two-way design, each braced MDF cabinet houses an AMT ribbon tweeter matched to a 6.5in mid/bass driver with an aluminium cone. Sensitivity is specified at 88dB and the enclosures are available in a choice of nut or silver oak real wood veneers. *www.en.elipson.com*

Astonishing sights and sounds as Polish company Manron lit up its Amos Delta SE150m monoblocks, said to be good for 150W/8ohm in Class A. Each chassis uses a directly heated GM100 power triode, once to be found only in Soviet-era radio stations, with a Lundahl output transformer. The definition of 'limited edition' – Manron says it will only be making two pieces of this model! *www.manron.pl*

Czech company Sroll makes both electronics and loudspeakers but thanks to supply chain issues was unable to finish its latest speaker model, the Sound Garden, in time for the show. Nevertheless, visitors could enjoy its Epigram integrated amp and Muse high-resolution DAC, laced together with the company's range of Purity Kapton cables. *www.sroll.com*

Montréal Audiofest 2022

Words: **Doug Schneider** & **Hi-Fi News** Pictures: **Doug Schneider**

Taking place on the weekend of March the 25th at the Bonaventure Hotel in Quebec, the 33rd Montréal Audiofest welcomed 100 exhibitors representing over 300 audio brands. Able to accommodate some 6000 visitors, the event remains the biggest gathering in Canada of music lovers eager to hear the best the high-end has to offer. This year it also offered the opportunity to reconnect with old friends following the show's two-year hiatus due to the pandemic.

Alongside traditional gear, there was plenty to wow the crowds in the shape of jumbo amps, sharp new networking solutions and super-speakers, while local distributors ensured little of the floorspace was left fallow as they showed big-ticket systems assembled from local and global names alike.

This special edition of Oracle's Paris MkV HSP turntable celebrates the album *Histoires Sans Paroles – Harmonium Symphonique*, which has Jean-Paul Riopelle's 1954 painting Le Jacob-Chatou on its cover. Harmonium was a '70s prog rock band highly popular in Canada. The cartridge is from Grado's Reference Series. *www.oracle-audio.com*

The Conrad Johnson TEA2 phono stage (top) is available in both high- and low-gain versions and features a 'zero loop feedback' circuit with passive RIAA equalisation. Gain for the input stage is provided by a pair of 12AX7 tubes. The ET7-S2 preamp (below) employs a circuit with one tube – a 6922. This is said by CJ to offer 'low noise, low microphonics, and gain well suited to use in a zero-feedback line-stage'. *www.conradjohnson.com*

PS Audio took the wraps off its first ever loudspeaker, the aspen FR30 [see p107]. Seen here in a Pearl White finish, these 154cm-tall towers were driven by a selection of the company's electronics, including BHK monoblocks, a BHK preamp, a DirectStream DAC [*HFN* Aug '14], SACD transport, and two P15 power regenerators. Kimber Kable Carbon speaker cable [see p119] and interconnects were also used, with PK10 power cords. *www.psaudio.com*

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per month for **24 months*.**

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Type: Floorstanding, pair

Sonetto III
£3,350

0% FINANCE EXAMPLE*
Initial 20% deposit of
£670.00, then **£148.89**
per month for **18 months*.**

Type: Standmount, pair

Sonetto II
£1,950

0% FINANCE EXAMPLE*
Initial 20% deposit of
£390.00, then **£130.00**
per month for **12 months*.**
(stands not included)

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Type: Standmount, pair

Sonetto I
£1,450

0% FINANCE EXAMPLE*
Initial 20% deposit of
£290.00, then **£96.67**
per month for **12 months*.**
(stands not included)

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hi-fi news OUTSTANDING PRODUCT

Belt-driven turntable with electronic speed control and tonearm
Made by: Clearaudio Electronic GmbH, Germany
Supplied by: Sound Fowndations, UK
Telephone: 0118 981 4238
Web: www.clearaudio.de; www.soundfowndations.co.uk
Prices: £17,500 (inc. PP 24V PSU), £5000 (Universal arm)

AUDIO FILE

Clearaudio Reference Jubilee

Released to celebrate Clearaudio's '40 years of excellence' (an anniversary that actually fell in 2018, but product delays are nothing new) the £17,500 Reference Jubilee turntable, limited to 250 units worldwide, doffs its cap to the company's first Reference turntable, released in 1993. Specifically, it continues with the distinctive V-shaped plinth, although acrylic is replaced here with Panzerholz – the 'armour-plated' wood – sandwiched between layers of aluminium.

'A performance that washes over you with authority and scale'

The deck's bearing, using Clearaudio's familiar Ceramic Magnetic Bearing technology, is located front and centre. To the right is the tonearm base, and to the left are operation buttons plus a 24V DC motor suspended within a circular turret. The drive circuit is a hybrid digital/analogue design – a sensor on the plinth monitors the platter's rotation and a 12-bit DAC generates a reference voltage that's fed back to the analogue motor control circuitry, ensuring its speed is kept spot-on. Ordinarily, the deck is supplied with a 'wall-wart' PSU but this Jubilee package comes with Clearaudio's Professional Power 24V unit, a superior outboard supply that offered a marked reduction in motor noise in our tests.

The lower part of the 'Jubilee's two-piece platter is a 15mm-thick, 8.5kg stainless steel disc, and above this is a 50mm, 5kg POM (polyoxymethylene) main platter – both locating onto a central upper bearing housing. For review, the deck was supplied with Clearaudio's Universal 9in carbon fibre tonearm (£5000), in a new variant with silver internal wire and a DIN output socket rather than a captive arm lead.

MUSICAL MAESTRO

Take time with the Reference Jubilee's rather fiddly setup and you'll be rewarded. Used with an MC Essence cartridge, Clearaudio's deck/arm combination proved to have a knack of picking the best aspects from a whole range of musical styles, and serving them up in delicious fashion. There was the sense of poise and refinement that marks out a thoroughly well-engineered product, but it never sounded flat or torpid, instead mixing sophistication with a willingness to let its hair down when required.

Key to this is the bass, which is nothing short of magnificent in terms of timing and precision. The low notes of Bob Marley and the Wailers' 'Waiting In Vain' [*Legend*; Island Records BMW1] took on real form, having their own space and a proper sense of texture and definition. Elsewhere on this track, crisp percussion effects lurked in the background, while the vocals were definitively front and centre.

This turntable has a solidity to its imagery, and treble quality of the deck, arm and cartridge are impeccable too, with transparency, definition and an underlying sweetness present and correct. The synthesised 'hi-hats' on Chris Rea's *God's Great Banana Skin* [EastWest 4509-90995-1] had a crispness and clarity to them, but there wasn't any doubt they were an electronic facsimile of the real deal.

Played via the Jubilee deck, this LP boasted an excellent dynamic range. When Rea lets rip on his slide guitar, lesser decks have a tendency to flatten the 3D perspective as they struggle to fit it all in. Clearaudio's turntable was having none of this, leaving the performance to wash over us with authority and scale.

ABOVE: The plinth is a Panzerholz wood laminate with CNC-machined alloy plates above and below, and supported on three adjustable spiked feet. Soft-touch buttons enable 33.3, 45 and 78rpm speed control [far left]

VERDICT

Setup is 'comprehensive' but the effort is fully justified by the performance, ensuring Clearaudio's stunning turntable can wear its 'Reference' tag with pride. Hopefully it sires a permanent version...

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.34rpm (+0.03%)
Time to audible stabilisation	3-4sec
Peak Wow/Flutter (Peak wtd)	0.02% / 0.07%
Rumble (silent groove, DIN B wtd)	–70.2dB (with PP 24V upgrade)
Rumble (through bearing, DIN B wtd)	–66.8dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–54.7dB
Power Consumption	5W (1W standby)
Dimensions (WHD) / **Weight**	495x160x343mm / 22kg

AUDIO FILE

Medium-output moving-coil cartridge
Made by: MoFi Electronics, Chicago, USA
Supplied by: Karma-AV Ltd, York
Telephone: 01423 358846
Web: www.mofielectronics.com; www.karma-av.co.uk
Price: £1499

hi-fi news OUTSTANDING PRODUCT

MoFi UltraGold

ABOVE: The MC mech, fixed neodymium magnet and permendur yoke are mounted into a two-part brass/alloy body. The coils use PC-OCC wiring and are partially revealed beneath a layer of fibre tape under the cartridge body. Meanwhile, although the long cantilever demands caution, cueing is a dream

There's much to be said for record labels also manufacturing playback equipment, and Mobile Fidelity, *aka* MoFi, has continued to demonstrate this synergy through a portfolio of turntables [*HFN* Jul '19 and Jan '20], phono stages [*HFN* Mar '20] and a trio of 'Tracker' MM cartridges. Now comes the UltraGold, its first moving-coil pick-up. This is priced £700 higher than MoFi's dearest MM, but is so classy an offering that once you hear it, you'll scratch around for the dosh. Yup, it's that good.

MoFi's secret weapon, beyond manufacturing some of the finest-sounding LPs ever pressed, is a wizard named Allen Perkins, whose Spiral Groove turntables [*HFN* Jan '11] have always been ranked in the A-list. With over 35 years in the hi-fi biz, Perkins is known for his fastidious approach and the UltraGold pick-up reflects this attention to detail. He's also a guitarist, so this MC is immediately identifiable as 'musical' rather than 'analytical', and then there's his input into the rather deceptive styling. You'll think it's going to be a pain, but the naked cantilever and a host of angles begging to be lined up (including the square top profile) render this one of the easier cartridges to install.

> 'The UltraGold proves its worth by revealing distinctive textures'

The UltraGold's recipe of nude Shibata stylus, boron cantilever, neodymium magnet and PC-OCC wiring could just as easily describe a cartridge costing £5000 – and no seasoned audiophile would blink. MoFi has then fitted this to an 'ultra-low resonance' body – an aluminium/brass extrusion – which is threaded so there's no fiddling with nuts 'n' bolts. You'll likely have it mounted in a matter of seconds.

Pins are colour-coded and widely-spaced, meaning there remains only one complaint to level at the UltraGold: getting it out of the box without it coming to grief. For some reason, the minimalist packaging opens to reveal the cartridge squeezed into a cut-out card aperture on a foam insert. There are no gaps around the cartridge to insert your fingers, leaving you to force it out with a blunt tool.

FEAST FOR THE EARS

The UltraGold MC was tried with three different phono stages and every time it worked best with 100ohm loading (moreover, it sails through anything you subject it to at 2g...). And by 'worked best' we mean it sounded delightful.

The Traveling Wilburys' blissful 'Handle With Care' [Wilbury Records W7732T] is a feast of guitar sounds, but chosen here for another reason: the voices of Lynne, Orbison, Dylan, Petty and Harrison. These voices meshed with mutual support while maintaining each individual character, the UltraGold proving its worth by vividly revealing distinctive textures, breathing and phrasing.

Indeed, this pick-up – whatever else may be said about its strengths, and they are numerous – is midband-dominant, in a good way. Like the BBC LS3/5A and Radford tube amps, the UltraGold MC adores and cossets the human voice. Is there a price to pay for this? The upper registers match the midband for authority and there's plenty of good ol' MC warmth, but some listeners might prefer more slam at the extreme bottom end. For example, playing War's *Greatest Hits 2.0* [Far Out/Rhino R1 655988], where the absolute weight of the sound is crucial, served as a reminder that MoFi's MMs arguably have a touch more kick. This is more about presentation and character than absolute accuracy though, and turning to War's heavier tracks was no less rewarding than listening to the vocals-centric Wilburys, with the low-end impressively snappy.

Whatever adjectives the entire canon of hi-fi begs to use, one stands proud for the UltraGold and that is 'fluid'. But it's not just the smooth conveying of liquidity in The Beach Boys' *Feel Flows* box [Capitol 02508 80212] – it's the consistency in the dynamic swings from soft to loud and back, the wholeness of the soundstage, and the nature of the air around the instruments. This cartridge has it all covered.

VERDICT

As we've said, who better than a record label to develop a cartridge? The UltraGold is a hyper-modern take on classic MCs, retaining the virtues of warmth and air, but with superb trackability. Chalk it up as another MoFi bargain.

HI-FI NEWS SPECIFICATIONS

Generator type/bodyweight	Moving-coil / 7.3g
Recommended tracking force	18-22mN (20mN)
Sensitivity/balance (re. 5cm/sec)	452µV / 0.6dB
Compliance (vertical/lateral)	18cu / 20cu
Vertical tracking angle	22 degrees
L/R Tracking ability	80µm / 80µm
L/R Distortion (–8dB, 20Hz-20kHz)	0.5–17% / 0.4–11%
L/R Frequency resp. (20Hz-20kHz)	+0.0 to –4.5dB / +1.2 to –1.7dB
Stereo separation (1kHz / 20kHz)	28dB / 14dB

inakustik

PHYSICS NOT VOODOO

hi-finews EDITOR'S CHOICE

"...if you're thinking of blowing the cobwebs from your set-up, In-akustik has the air!"

NF-204 Micro Air, Editor's Choice, Hi Fi News, April 2022

"There's a lot of hand-made cable here for the money, making it a reliable bet for that first 'big upgrade'."

LS-204 XL Micro Air, Editor's Choice, Hi Fi News, February 2021

karma
audio-visual

01423 358 846 **karma-av.co.uk**

AUDIO FILE

Low-output moving-coil cartridge
Made by: Ortofon A/S, Denmark
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: www.ortofon.com; www.henleyaudio.co.uk
Price: £5349

Ortofon MC Verismo

New to the company's 'Exclusives' series, Ortofon's MC Verismo moving-coil, at £5349, joins the £6999 MC Anna Diamond [*HFN* Oct '19] and £3799 MC Windfeld Ti [*HFN* Jan '18], but with an open body shape first pioneered in the Danish brand's MC A90 [*HFN* Sep '09]. It shares some technology with the Anna Diamond, so if you're shopping in this rarefied sector, you'll want to know the trade-offs.

There are similarities in the 'Wide Range Damping' systems employed at the cantilever fulcrums, although coils and magnet assemblies are distinct, the Verismo employing gold-plated copper in the former and a Field Stabilising Element (FSE) in the latter. Both MCs require a 10ohm load and have claimed outputs of 0.2mV, but compliance differs, with the Verismo specified at a slightly softer 13µm/mN. Furthermore, the Verismo weighs 9.5g while the Anna Diamond is a far heftier 16g, and the newer cartridge requires a downforce of 2.5g-2.8g (with 2.6g sounding optimal), while the Anna Diamond gets away with 'just' 2.4g.

As the body colour conveys, the Verismo's housing is made from titanium by 'Selective Laser Melting (SLM)', a technique also used for the MC Anna's two-part body. In addition to dealing with hardness, SLM has enabled Ortofon to control the density and thus the damping properties of the body material.

In terms of aesthetics, the Verismo is a cool-looking cartridge to rival EAT's Jo N°5 [*HFN* Dec '18]. It screams 21st century both in its shape and in physical details. The profile itself aids matters of shielding, damping, weight and internal isolation, while the top affords the increasingly popular three-point contact.

Installation requires care beyond worrying about the vulnerability of the diamond cantilever – with 'Replicant 100' line contact stylus – because the Verismo's body is as angular as a Lamborghini Aventador. But you'll soon realise it's relatively easy to line up within the grids printed on set-up gauges.

LOVE AT FIRST LISTEN

From the moment the stylus settled into the groove there was no doubt we were in the presence of something memorable. It started with Aretha Franklin's 'Baby I Love You' from the *Goodfellas* soundtrack [Atlantic RCV1 821527]. Let's not be coy about this – you simply *know* during those first seconds of an opening track whether a component, system, LP or CD is excellent, middling or a yawn.

> 'A spectacular bottom end with glorious sumo-wrestler bulk'

It wasn't just the spectacular bottom end with its glorious, sumo-wrestler bulk which stopped us in our tracks. It was the stage width. That's not a quality which should matter as much as neutrality, timbre, tonal balance or other elements of the actual sound, but if the soundstage ain't right, neither is the rest of it. Aretha's familiar voice was sounding emphatically more 'real' and 'present', and there was absolutely no element which sounded inconsistent with the rest of the sonic picture.

Textures were so believable that seasoned musicians would surely be able to identify the makers of the instruments being played. Cream's 'Sunshine Of Your Love', from Side Two of the LP, was delivered with a sonic punch, this cartridge separating bass content with such authority that Ginger Baker's percussion and Jack Bruce's bass were transformed from foundational duties to the actual virtuoso roles often obscured by Eric Clapton's powerhouse guitar work.

On Janis Joplin's *Pearl* [MoFi One-Step UD1S-2013] it took no more than seconds to experience the most convincing bass we've heard this side of a *Persuasive Percussion* open-reel tape, and then Janis' vocals arrived. Every nuance was captured, and her soaring, wailing cries moved from soft to loud with sheer grace. This was the sound of a cartridge that ranks among the finest money can buy.

ABOVE: The swooping body shape – with three-point headshell contact and threaded inserts for secure mounting – makes initial setup/alignment somewhat tricky, but the exposed diamond cantilever/Replicant 100 stylus makes for easy cueing

VERDICT

The MC Verismo shares DNA with an all-time fave Ortofon – the warmer, romantic SPU – in its recreation of majestic soundstages, while its refinement rivals MCs at twice the price. It's as revealing as Shure's V15 V, yet as inviting as an artisan MC from Japan. Put another way, it is nothing short of sensational.

HI-FI NEWS SPECIFICATIONS

Generator type/bodyweight	Moving-coil / 9.5g
Recommended tracking force	25-27mN (26mN)
Sensitivity/balance (re. 5cm/sec)	225µV / 0.29dB
Compliance (vertical/lateral)	11cu / 13cu
Vertical tracking angle	26 degrees
L/R Tracking ability	75µm / 75µm
L/R Distortion (–8dB, 20Hz-20kHz)	0.7–25% / 0.3–22%
L/R Frequency resp. (20Hz-20kHz)	+1.5 to –1.3dB / +1.2 to –1.4dB
Stereo separation (1kHz / 20kHz)	25dB / 22dB

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"The Fenestrias are without doubt one of the finest speakers we've heard." – **What Hi-Fi?**, Jan '22

"It's a striking piece of engineering, and delivers speed and detail, along with exceptional soundstaging and an involving effortless listen." – **Hi-Fi News**, June '21

"It is the most transparent and even handed loudspeaker I have used in over thirty years of reviewing" – **the-ear.net**, Nov '21

Book a demonstration to hear your favourite music.
See: www.pmc-speakers.com/fenestria

fenestria in Tiger ebony

AUDIO FILE

Belt-driven turntable with balanced output
Made by: Pro-Ject Audio Systems, Austria
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: www.project-audio.com; www.henleyaudio.co.uk
Price: £1599 (inc. arm and cartridge)

Pro-Ject X2 B

One question is begged by the arrival of Pro-Ject's X2 B turntable: why did it take so long for the industry to simplify a balanced vinyl-playing front-end? It's not like balanced operation wasn't adopted by high-end listeners decades ago as superior to single-ended for both line-level sources and pre-to-power amp connections. MC cartridges are inherently balanced. So why has there been the wait?

Pro-Ject, ever eager to solve such problems at crowd-pleasing prices, has created a pairing which achieves balanced LP playback: the £1599 X2 B record deck and partnering £399 S3 B phono stage.

The X2 B turntable, an update on the earlier X2 [*HFN* Nov '19], arrives with Ortofon's superb Quintet Red moving-coil cartridge, worth £250-£270, and adds to the RCA phono sockets beneath the back of the plinth a single mini-XLR socket which handles both left and right channels in balanced mode. Otherwise, it's the familiar turntable with a choice of finishes, including gloss black, satin black or white, or the handsome wooden base of the review sample. Dimensions are 460x150x340mm (whd) and the weight is 10kg, clearly the next level up from the much-loved Debut line. Speed control is electronic (including 78rpm with a dedicated belt), the 9in carbon/aluminium tonearm is fully adjustable for VTA and azimuth, and it sports a chunky 30mm-thick, 2kg acrylic platter.

Meanwhile, the S3 B phono stage adds that vital mini-XLR input to its single-ended RCAs, plus full-size XLR and RCA outputs. It also offers a full complement of loading and gain options for MM and MC cartridges.

> '"Like A Rolling Stone" sounded just that bit more vivid, more real'

ELEVATED LISTENING

If you're wondering how much of a difference the upgrade to balanced playback would make on Pro-Ject's already excellent X2 turntable, the answer is... plenty. Go for fully balanced operation all the way from stylus to preamp, and something magical happens.

What proved to be a real showstopper, because of both familiarity and sonic excellence, was Dusty Springfield's lush 'Son Of A Preacher Man' from the 2020 re-issue of the *Dusty In Memphis* LP [Rhino/Run Out Groove ROGV089]. Fetishists are welcome to discuss which is the best-ever version but, suffice it to say, this one's superb.

It was the vocal which exhibited the most spectacular uplift, if that's the word. Dusty's voice was known for its smoky, breathy qualities, but who would have anticipated an even greater sense of intimacy or authenticity? What the X2 B's balanced operation did – in conjunction with the S3 B phono stage – was give the voice greater prominence both in terms of its separation from the backing musicians and in three-dimensional terms, moving it slightly forward.

Something from leftfield, a mono reissue of Bob Dylan's *Highway 61 Revisited* [Sundazed LP5-71], would minimise one of the main benefits of balanced LP playback, the openness, as soundstage is not a factor with mono. But what remained were gains in the lower registers, as well as an emphasis on the midband, primarily the vocals. The sheer majesty of 'Like A Rolling Stone', with the keyboard work of Al Kooper and Mike Bloomfield's guitar playing, sounded just that bit more vivid, more real. And as for Dylan's voice? Right in the room.

Many of you will remember the hysteria which accompanied assorted trends, some which turned out to be keepers with technical validity, others less so: bi-wiring, active speakers, polarity inversion, magic bricks, green pens on CDs, *ad nauseam*. The X2 B falls firmly into the first category and, just as most speaker brands now provide the option of bi-wiring or bi-amping, it would be nice if it forces every manufacturer of tonearms, phono preamps and turntables to emulate Pro-Ject's balanced approach.

ABOVE: A neat and compact, modern-looking turntable, the X2 B is based on the X2 but is fitted with a Quintet Red moving-coil pick-up and a balanced mini-XLR connection around the back. Here the supplied black felt mat is removed to fully reveal the CNC-machined acrylic platter

VERDICT

The X2 B feels truly revolutionary – there are surely no excuses for not facilitating a simple balanced output from an MC cartridge if Pro-Ject can deliver it for under £2k. To paraphrase Jon Landau when he first saw Springsteen, we've heard the future of vinyl playback.

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.36rpm (+0.04%)
Time to audible stabilisation	4sec
Peak Wow/Flutter (Peak wtd)	0.02% / 0.07%
Rumble (silent groove, DIN B wtd)	–67.5dB (–68.0dB with felt mat)
Rumble (through bearing, DIN B wtd)	–66.1dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–52.5dB
Power Consumption	5W (1W standby)
Dimensions (WHD) / **Weight**	460x150x340mm / 10kg

hi-fi news OUTSTANDING PRODUCT

Medium output moving-coil cartridge
Made by: Shelter Inc., Ibaraki, Japan
Supplied by: Padood Ltd, Cambridge, UK
Telephone: 01223 653199
Web: www.shelter-audio.co.jp; www.padood.com
Price: £4000

AUDIO FILE

Shelter Harmony

The word 'harmony' has appeared in the name of more than a few audio products over the years, and now it's the turn of Shelter to leverage its musical connotations. Priced £4000, the Harmony is the Japanese brand's new flagship MC, although it's far from the costliest pick-up on the high-end scene.

Shelter has been producing cartridges since its founding in 1986. In the intervening years it has introduced a wide variety of models to cover every niche, although its current lineup comprises just six designs, spread over two ranges. First up is the 'Legendary Line', starting with the 201 MM at £255 and moving up through a quartet of MC options. Then there's the 'Ultimate Line', which at the moment consists of only the Harmony, as the earlier Accord model has been discontinued. Two headshells and an MC step-up transformer complete the portfolio.

'The Pet Shop Boys enjoyed a taut, crisp and lithe rhythm track'

The Harmony MC looks – and feels – a little different to most cartridges thanks to the material used in its body construction. CFRP (Carbon Fibre Reinforced Polymer), a composite with an extremely high strength-to-weight ratio that's used in ship building and aerospace applications, is laid down in layers and moulded into shape. The combination of material and body shape helps shift inherent structural resonances up to higher frequencies, while its self-damping and isolation properties further isolate the pick-up's delicate motor unit from outside influences.

The business end of the Harmony comprises an aluminium cantilever plus a diamond tip with a line contact profile. Downforce is specified over a very wide 1.4-2.2g range, and we found the Harmony tracked most securely and sounded best at the upper end of these values.

Shelter supplies its cartridge with polycarbonate mounting screws and nuts; if you choose to substitute these for metal types take care not to over-tighten the hardware and crush the Harmony's top plate. Also in the box is a carbon fibre disc, designed to be fitted over your deck's spindle and under any clamp, and said to 'absorb vibration' from the platter.

THE BEST OF BOTH

There are bright, punchy cartridges that make you sit up and listen, there are smooth designs that make you more inclined to sit back and relax – and then there's Shelter's Harmony, which combines both these characteristics for an utterly captivating listen.

Helping here is an uncanny quietness that brings soft background subtleties in recordings to the fore, such as the delicate 'blowing wind' effects at the start of The Eagles' *Long Road Out Of Eden* [Universal 0602517546950], but this attraction to minor detail doesn't preclude the Harmony from turning heads when it comes to bass. Its low-end performance is prodigious, with magnificent weight, depth and impact when required.

Grischka Zepf's bass playing is a standout feature on Chris Jones' 'No Sanctuary Here' [SFR 357.8006.1], but as Chris starts singing and the guitar and percussion enter, it's easy for these aspects to dominate. Yet the Harmony gave equal weight to everything and held the track together immaculately.

The line contact stylus works like a charm in capturing every nuance of treble detail buried within the grooves, albeit while retaining a character that errs toward the smooth side. And it can still rock out, even though it doesn't have the bright, forward nature you might assume is necessary for a sound with palpable attack – the detail that it unearths ensured The Pet Shop Boys' 'I Want A Dog' [*Introspective*, Parlophone PCS 7325] enjoyed a taut, crisp and lithe rhythm track. As to those rain effects at the beginning, you'll be tempted to reach for an umbrella...

ABOVE: The Harmony employs compressed layers of dry carbon fibre (CFRP) for its shell, combining rigidity with light weight – total mass is just 8.5g. Care must be taken not to crush the cartridge top-plate, so the mounting holes are not threaded, allowing for (plastic) nuts and bolts

VERDICT

The Harmony MC is a fitting flagship for Shelter's family of cartridges. It's both gloriously and introspectively detailed, yet pulls performances together with a – yes – *harmony* that's seldom experienced at any price. Those searching for analogue 'shelter' in an increasingly digital world will surely love it.

HI-FI NEWS SPECIFICATIONS

Generator type/bodyweight	Moving-coil / 8.5g
Recommended tracking force	14-22mN (2.0mN)
Sensitivity/balance (re. 5cm/sec)	585µV / 0.05dB
Compliance (vertical/lateral)	11cu / 12cu
Vertical tracking angle	28 degrees
L/R Tracking ability	80µm / 80µm
L/R Distortion (–8dB, 20Hz-20kHz)	1.1–18% / 0.55–14%
L/R Frequency resp. (20Hz-20kHz)	+0.05 to –1.3dB / +1.2 to –1.45dB
Stereo separation (1kHz / 20kHz)	26dB / 19dB

AUDIO FILE

Belt-driven turntable/arm with electronic speed control
Made by: SME Limited, Steyning
Supplied by: SME Ltd
Telephone: 01903 814321
Web: https://sme.co.uk
Price (with arm): £49,950-£59,950 (depending on finish)

hi-fi news OUTSTANDING PRODUCT

SME Model 60

Regarded by some as the pinnacle of turntable engineering, SME's Model 30, released in 1989, is a tough act to follow. Enter the Model 60, a new flagship named to celebrate the diamond anniversary of the UK company's first hi-fi product, the 3009 tonearm.

This £49,950 deck (rising to £59,950 depending on finish) contains a mix of old and new technologies. The slightly over-sized platter, for example, remains the same, but is now driven by a 24V AC motor, replacing the DC type. This is necessary, says SME, to guarantee the desired accuracy over its microprocessor speed control.

'Its resolving power will introduce you to details you've missed before'

Power to this motor is provided by two external units. The first houses a large transformer and offers an unregulated DC supply to the second box, which includes the DSP-based frequency generator and main synchronous output, and hosts the on/off and speed change buttons, plus rotary pitch control.

The Model 60's aluminium alloy chassis, now elegantly curved, has corner towers to support the upper (sub)chassis, using a refined, improved suspension system. The bearing is still a high-carbon steel type, but now gets a silicon fluid-filled damping bath at the base of the housing to absorb microscopic resonances generated by the bearing/spindle/platter assembly.

Perhaps SME's most notable addition however, is the new Series VA tonearm, an 'Advanced' iteration of the longstanding Series V. No longer metal, this is hewn from a machined-from-solid 'advanced polymer resin', and features upgrades to the shape of the tube and its semi-circular support cradle.

DECK OF DELIGHTS

Hearing the Model 60 in full flow is an extraordinary experience. Its presentation has an effortlessness and neutrality that is enthralling, and completely free of unwanted 'character', so we always felt that we were listening to what the artist/producer intended. It also possesses one of the most eerily silent backgrounds around – levels of groove noise were astonishingly low, and pops and clicks noticeable only by their absence. And when not being quiet, the Model 60 turned in a performance that was revelatory, playing familiar recordings in an almost unfamiliar fashion.

Its clarity and resolving power will introduce you to subtleties you've likely missed before. Jennifer Warnes' 'Bird On A Wire' [*Famous Blue Raincoat*; Impex IMP6021] is a masterclass in instrument positioning, yet its semi-circle of musicians has never sounded as beautifully defined to our ears than through SME's flagship. Warnes was locked centre stage, and as each instrument did its stuff – from rich bass guitar to pristine percussion – their positions were clearly revealed.

This keen insight never once left the Model 60 sounding like a surgical instrument. Rather, by delving so deep this only worked to knit the music together more comprehensively. Detail is definitely not the enemy here – more information serves more musical enjoyment, and the Model 60 showcases this to exquisite effect.

Its sense of sumptuous clarity continues into the top end, with vocal performances an absolute joy to behold. On the *a cappella* version of 'Too Many Walls' [Polydor CATHX 4], Cathy Dennis was a clear and vivid presence. Similarly, but across the lower registers, the Model 60's bass delivery is extended, fluid and taut, and when impact is required, it provides it with weight and gusto.

ABOVE: One of four colourways offered, the silver (natural) anodised chassis features black anodised suspension towers within which are larger, inverted versions of the Model 30 suspension, further stabilised with horizontal bands. The Model 60 is fitted with the new Series VA tonearm, machined from a solid block of inert polymer

VERDICT

The Model 60 weaves a compelling musical spell, setting a new standard by which all high-end turntables should judged. SME has taken a deck many considered to be 'the best' and made it even better.

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.33rpm (–0.005%)
Time to audible stabilisation	5-6sec
Peak Wow/Flutter (Peak wtd)	0.01% / 0.02%
Rumble (silent groove, DIN B wtd)	–75.5dB (–75.4dB with clamp)
Rumble (through bearing, DIN B wtd)	–76.5dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–62.5dB
Power Consumption	18W (1W standby)
Dimensions (WHD) / **Weight** (TT only)	557x212x417mm / 48kg

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nadelectronics.com/products/masters

AUDIO FILE

Belt-driven, suspended-subchassis turntable, arm and cartridge
Made by: Thorens GmbH, Bergisch Gladbach, Germany
Supplied by: Signature Audio Systems
Telephone: 07738 007776
Web: www.thorens.com; www.signatureaudiosystems.co.uk
Price: £1999

Thorens TD 1500

When Thorens confirmed that its wildly popular suspended-subchassis, belt-driven TD 150 of 1965 would make a return in updated form, this wasn't a typical case of 'exploiting retro'. The TD 150 was more than just a best-seller for Thorens – it was a breakthrough in the evolution of turntables.

Reborn as the TD 1500, the new deck has an updated aesthetic and superior build quality, but doesn't lose the instantaneous recognition factor. Its plinth, in black or walnut, is more solidly constructed, as is the arm board. The TD 1500 is also slightly larger than its antecedent, and heavier overall too, even though the platter weighs 1.4kg, versus the TD 150's 3.2kg design.

> 'It reproduced this funk masterpiece with sheer weight'

The tonearm, with Ortofon-designed detachable headshell system, is factory-fitted. It's unlikely that the TD 1500 will appear *sans* arm, as the integration with the deck is complex, one of the modern updates being sockets to accept the user's choice of cables instead of captive leads. Also very '21st century' is the facility to use a balanced XLR connection.

Thorens supplies the £1999 turntable with a cartridge from the evergreen Ortofon 2M range, but not an entry-level Blue or Red. Oh, no, this baby comes pre-fitted with the £295 2M Bronze.

Setup ease and adjustability are also improved over the original TD 150, with suspension levelling available through the platter, and setting of tonearm height and azimuth via equally thoughtful methods. Add in the TD 1500's electronically controlled motor, and in every respect this deck operates on a whole different level as far as ergonomics and feel are concerned – hardly a revelation given the near 60-year gap!

BACK TO THE FUTURE

Before settling in with the Bronze, we tried other cartridges to isolate the TD 1500's own sound. It appears to have been 'tuned' to deliver a performance just on the right side of 'classic' – warm and velvety enough to remind old timers of the '60s, but snappy enough to satisfy newcomers to vinyl who were weaned on digital sources.

The bass on *Willy Deville & Mink Deville Collected* [Universal/Music On Vinyl MOVLP137], especially the slithery 'Spanish Stroll', was ample in both its mass and extension. There was nothing light or feathery about the overall sound, and this command of the low octaves was consistent through the tracks regardless of tempo, a highlight coming with the fiery 'Soul Twist'. Here was punch and power of the sort expected of decks with massive platters and dreadnaught chassis.

The 2M Bronze certainly helped, out-tracking lesser siblings, but it was a detour with Ortofon's MC Verismo [see p35] that proved even more of a testimony to the TD 1500's abilities. This deck has attack that let us hear nearly all that this premium cartridge has to offer.

Better still was the midband lushness, just right for handling the texture of Deville's voice. By the time the album got to the airy openness of 'Assassin Of Love', it was clear the TD 1500 would join other reborn classics which don't betray their ancestors.

The deck didn't blur the harmonies on The Delfonics' 'Didn't I Blow Your Mind This Time' [*Jackie Brown* OST; Maverick 603497843-527], blending near-clinical detail with warmth, and with 'Give The People What They Want' [*The Best Of The O'Jays*; Philadelphia International/Legacy 194398605-61], it reproduced this arch funk masterpiece with power, fluidity and an almost overwhelming sensation of sheer weight. Cohesive, coherent – the command of this £2k package is undeniable.

ABOVE: Fitted with a curved tonearm and Ortofon 2M Bronze pick-up, the TD 1500 is a classic suspended subchassis design. Lever selects 33.3 and 45rpm speed while the plinth is available in gloss black and walnut finishes

VERDICT

The build, looks and price of the TD 1500 are irresistible, but it's the sound quality that will delight those seeking an amalgam of vintage and modern. So, Thorens, how about a revived TD 125 next?

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.32rpm (–0.03%)
Time to audible stabilisation	3-4sec
Peak Wow/Flutter (Peak wtd)	0.02% / 0.04%
Rumble (silent groove, DIN B wtd)	–70.2dB
Rumble (through bearing, DIN B wtd)	–67.1dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–58.3dB
Power Consumption	2W (1W standby)
Dimensions (WHD) / **Weight**	420x150x360mm / 7.9kg

hi-fi news OUTSTANDING PRODUCT

High-output moving-magnet cartridge
Made by: Vertere Ltd, London
Supplied by: Vertere Ltd
Telephone: 0203 176 4888
Web: www.vertereacoustics.com
Price: £845

AUDIO FILE

Vertere Sabre

In the heated-up marketplace that is 'LP Playback Circa 2022', we are experiencing a surfeit of cartridges, tonearms and decks, and with so crowded a playing field Vertere has to make its Sabre cartridge stand out from the rest. To do this the company has chosen to address an oft-neglected niche: true high-end moving-magnet designs.

The £845 Sabre highlights the virtues of a fine MM cartridge – superior tracking, a usefully high output, and universal 47kohm loading. All this while incorporating carefully specified, proprietary components from two of Japan's top OEM suppliers, one for the micro-elliptical stylus, aluminium cantilever and suspension, the other for the Alnico magnet/coil 'motor'.

These innards are housed in a CNC-machined aluminium alloy body, coloured a bold orange, which promises a constructional integrity that's the antithesis of moulded plastics. Despite this, the entire cartridge weighs a shade over 10g, which won't cause problems for too many tonearms.

'Richer-sounding than most MMs, but no less detailed and precise'

Thanks to the shell's strength, the internals are able to be bolted into place with four visible 'spike' screws, eschewing any adhesives. And it's not just for looks – rather, it enables a certain type of fetishist to tighten those screws without worrying about deforming the body.

Indeed, the Sabre's design is all about the details. The top plate features raised areas to enable a 'three-point' contact with the headshell, and further to ensuring a tight fit are stainless steel thumbscrews included in the packaging which hold the Sabre in place while in transit. These screws can be used to fix the cartridge to the headshell or tonearm, and they do look impressive as hell *in situ*.

Everything about this cartridge suggests concern for the user. Alignment was a doddle, thanks to the Sabre's parallel sides, markings on the front facet to act as visual aids, and a cut-out allowing a full view of the stylus and cantilever for positioning on a protractor. We found VTA to be (sonically) optimum with the top of the chassis absolutely parallel to the LP surface. Tracking force was set to 2g, and it never misbehaved, even at the inner points with some deep-grooved, overly-modulated 12in singles.

LIKE A CHARM

Having used a variety of MMs during the past year, the Sabre stood out from all of them because of an unexpected silkiness that we'd usually associate with a moving-coil design. This was apparent even with music which does not necessarily command such an attribute, including the raucous J. Geils Band debut [eponymous; Speakers Corner/Atlantic SD8275], where Magic Dick's harmonica repeatedly exhibited a freedom from the edginess which drives some people away from that instrument, making it sound more immediate.

The Dave Clark Five's *All The Hits* [BMG CAT408DLP] provided one of the cleanest versions available of 'Glad All Over', and the Sabre ran pretty damned close to a good MC for the sheer mass of overloaded bass and percussion. This track means nothing without the sensation that a herd of wildebeest are stomping on a wooden floor, and the pile-driver effect was delivered in full force. Where this MM differs from like-priced moving-coils in this area is that the bass drum sound is drier, and a touch tighter. Which is the more correct is impossible to say; personal taste should always be the final arbiter.

For something more subtle, we wallowed in *The Wonderful Sounds Of Female Vocals* [Analogue Productions APP122]. The Sabre dealt with the inimitable breathy delivery of Dusty Springfield on 'Son Of A Preacher Man', and what impressed as much as the airiness was the wide presentation beyond the singer. This further reinforces Vertere's desire to present an MM cartridge as a high-end transducer worthy of the respect afforded to MCs. It certainly makes it more difficult to proselytise blindly (or should that be deafly) that all MCs automatically slaughter all MMs. This cartridge proves otherwise.

ABOVE: The Sabre has a two-part body with the inner (black) MM mechanism clamped in place within the bold orange alloy shell via four M2.5 Allen-headed 'spike' bolts. A shank-mounted 7.5x15.5µm elliptical stylus is mounted through Vertere's crimped alloy cantilever

VERDICT

As you've now surmised, the Sabre is a star. It's richer-sounding than most current moving-magnets, but no less detailed and precise, with plenty of speed and attack. While there's still a magical warmth to MCs which separates them from MMs, this almost closes the gap.

HI-FI NEWS SPECIFICATIONS

Generator type/bodyweight	Moving-magnet / 10.3g
Recommended tracking force	19-21mN (20mN)
Sensitivity/balance (re. 5cm/sec)	4.95mV / 0.9dB
Compliance (vertical/lateral)	15cu / 14cu
Vertical tracking angle	26 degrees
L/R Tracking ability	75µm / 75µm
L/R Distortion (–8dB, 20Hz-20kHz)	1.3–11.8% / 1.1–10.5%
L/R Frequency resp. (20Hz-20kHz)	+0.1 to –12.1dB / +0.1 to –10.9dB
Stereo separation (1kHz / 20kHz)	36dB / 24dB

MAGELLAN 40TH

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SCV

hi-fi news OUTSTANDING PRODUCT

MM/MC tube phono preamplifier
Made by: Audio Research Corp, Minnesota, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.audioresearch.com; www.absolutesounds.com
Price: £17,500

AUDIO FILE

Audio Research REF Phono 3SE

Let's talk about names. Audio Research's Reference range has long been subject to shorthand – even the factory calls the models 'REF' for brevity – while updated (mk2) components are now defined by 'SE'. This applies to the £17,500 Reference Phono 3SE, although in this case the revisions – which include enhancements to capacitors and internal wiring taken from the development of the REF 160 mono and stereo power amps [*HFN* Aug '18 and Feb '20] – are retrofittable. At £3500, most existing owners will probably want the upgrade.

'There were sounds of breathing, maybe the swish of a coat'

Accepting two cartridges simultaneously, the REF Phono 3SE accommodates an increasingly popular trend. Many high-end vinyl enthusiasts now employ either two turntables or a single deck which accepts two or more arms, in order to connect two utterly disparate cartridges. This allows the user to choose the better of two (or more) pick-ups for playing LPs from specific record labels, vintages or genres.

The REF Phono 3SE even addresses non-RIAA eq, with two curves which haven't been used for more than a half-century: Columbia and Decca.

Want more flexibility? This is not a phono preamp that specifies MC for one input and MM for the other. Loading and gain are independently configurable, so it's truly two phono stages in one. And for those who obsess about cartridge settings and want to change the loading from the hot seat, all can be done with a supplied remote. Initial setup will include selecting a load (47kohm, 1000, 500, 200, 100 or 50ohm, plus custom loads through your retailer) and the menus provide a display of the number of hours on the REF Phono 3SE's valves.

REFERENCE BY NAME...

The setting to which you should pay most attention is the *gain*. The REF Phono 3SE mutes as you switch in the extra 23dB between 'Low' and 'High', but always try 'Low' first. Ortofon and Decca MM pick-ups, and MCs from EAT and Sumiko, were used – every one of them turned into a head-banger delight.

But that's admitting there is so much gain with which to play. The REF Phono 3SE is so quiet that the dynamic swings and low-level detail were of a calibre it's hard to recall experiencing. Miles Davis' *Kind Of Blue* [Acoustic Sounds UHQR 0004] was all about air, texture and detail, the album demanding little of the muscle of the preamp to make its point. There were sounds of breathing, what might have been the swish of a coat. We don't know. We weren't there. But this phono stage brought us close to Columbia's NYC studio in early '59.

There was no discernible preference for one cartridge type over the other, and the gain was such that high-output MCs could be used via the Low Gain/47kohm setting with little loss of dynamics. Four or five tracks played through various pick-ups revealed the best of each, as there's no display of bias in the REF Phono 3SE. The term 'reference' is not a conceit; this joins a select list of high-end phono stages so precise and yet so versatile that they are good enough to act as tools for reviewers, not just those fortunate enough to buy one and who will exploit the REF Phono 3SE's incredible adaptability.

We've played Bonnie Raitt's *The Glow* [Warner Bros K56706] countless times but just had to listen again to the punchy, rocking 'Standin' By The Same Old Love' and her intimately familiar voice. Again, the experience was of hearing 'things' that hadn't been apparent before. And that's a deal-*maker*.

ABOVE: The REF Phono 3SE's six buttons are for power, input, mute and menu navigation, all placed under a bold, informative green display. Eq for RIAA, Decca and Columbia curves is offered via a tube stage comprising three 6H30P triodes per side, with another 6H30 and larger 6550WE beam tetrode for HT PSU rectification/regulation

VERDICT

The Reference Phono 3SE is without question one of the most precise, quiet, open and dynamic phono stages available today – even when used with an eccentric London Gold. Those in the market should not hesitate to buy one.

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 50-1000ohm
Input sensitivity (re. 0dBV)	3.01mV / 224µV
Input overload (re. 1% THD)	295mV / 21.5mV
Max. output (re. 1% THD) / **Imp.**	93V / 111-585ohm
A-wtd S/N ratio (re. 0dBV)	83.5dB / 73.5dB (MM/MC)
Freq. resp. (20Hz-20kHz/100kHz)	–0.7dB to +0.0dB / +0.11dB
Distortion (20Hz-20kHz, re. 0dBV)	0.0014–0.14% (MM)
Power consumption	142W
Dimensions (WHD) / **Weight**	480x198x419mm / 16.6kg

AUDIO FILE

MM/MC phono preamp with degauss facility
Made by: Aurorasound Inc, Japan
Supplied by: Pure Sound, UK
Telephone: 01822 612449
Web: http://aurorasound.jp/english; www.puresound.info
Price: £3659 (+£369 for variable MC loading)

Aurorasound VIDA MkII

While every nation has its bijou marques, there's an aura to the likes of 47Lab, Shindo, Air Tight and Kondo, plus countless MC cartridge makers, hailing from Japan. Aurorasound is another, and its VIDA MkII phono stage, an evolution of the original VIDA [*HFN* Jul '13], ticks every box.

As self-contained as the standard £3659 version is – it provides simple high/low load switching on both MC inputs, with low recommended for cartridges below 100ohm and high for those above – there are facets to it that reinforce its appeal to enthusiasts. One is the ability to handle MM and MC cartridges via both inputs, thus supporting two decks or arms. Second is the optional VI6 six-way load switch (£369, fitted here), which provides six settings from 30 to 470ohm, and should satisfy the most fastidious of audiophiles. Not fitted to our review sample, however, was the balanced output (XLR) option at £549.

> 'The nature of the piano bordered on pounding rock 'n' roll'

Externally little has altered beyond the degauss control being moved from the front panel to the back. In practice, the MkII designation refers to the latest 'Aurora Amp module-2 Rev. 3' replacing the earlier 'module-1', these plugging into the mainboard which has also been updated to yield a claimed improvement of 6dB in left/right channel separation. The real wood-wrapped chassis of the main unit (it ships with an outboard power supply) has also been reinforced to reduce RFI and EMI.

LA VIDA LOCA

One of our favourite T-Bone Walker tracks is 'Vida Lee', and specifically the version carried on *Legendary Master Series Vol. 1 Urban Blues – Blues Uptown* [Imperial LM-94002]. Walker was all about slithery guitar and salacious vocals, but what the VIDA MkII also extracted from this track was plump, rich, honking sax which was enough to distract from the glorious sound of his big hollow-bodied Gibson and the realistic, almost tactile textures of that smoky voice.

From the same LP came Fats Domino's 'Don't Lie To Me'. Here the main sound was rollicking New Orleans barrelhouse piano, again dependent on the reproduction of certain resonances. A performance 70 years gone, and without the benefit of stereo, but it still filled the space in front of us.

With T-Bone's and Fats' voices tilted toward the richer end of the spectrum, the contrast of Carole King's vocals on *Tapestry* [Mobile Fidelity UD1S 2-030 One-Step] let us wallow in honeyed midband and a glorious sense of space. Yes, the VIDA MkII favours warmth – some might find it overbearing with certain MC cartridges, especially into an all-valve system – but with 'I Feel The Earth Move' and a change in tempo, the nature of the piano bordered on pounding rock 'n' roll, the phono stage's transient attack and crisp definition partially counter-balancing its warm nature.

This was consistent from one cartridge to another, including flavours of Ortofon MMs and MCs of varying impedances. If a pattern was emerging, it's that the VIDA MkII had all the speed and slam, across the frequency spectrum, to disarm any whose initial impression might be coloured by the warmth.

Comparing it with other solid-state phono amps, all sounded cooler and more forensic. With Little Feat's 'Willin'' from *Sailin' Shoes* [Mobile Fidelity MFSL 1-307], the VIDA MkII had no difficulty separating the myriad layers of sound, subtle licks from acoustic guitars, pedal steel far right, dry percussion, and the vocal harmonies. Aurorasound has found a near-perfect balance.

ABOVE: The wooden sleeve is a nod to hi-fi electronics of yesteryear while the light alloy fascia is dominated by an illuminated mute button. Toggles offer stereo/mono, a subsonic filter, high/low MC load switching and independent dual MM/MC input selection

VERDICT

Ergonomically ideal, beautifully made and as sweet-sounding as the finest analogue systems deserve, the VIDA MkII might be classified as a cult item due to its esoteric origins, but is nothing of the sort.

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm/100pF / 30-470ohm/1kohm
Input sensitivity (re. 0dBV)	9.42mV / 554µV (MM/MC)
Input overload (re. 1% THD)	128mV / 7.0mV (MM/MC)
Max. output (re. 1% THD) / **Imp.**	13.5V / 850ohm
A-wtd S/N ratio (re. 0dBV)	81.9dB / 76.0dB (MM/MC)
Freq. resp. (20Hz-20kHz/100kHz)	–0.0dB to +0.20dB / –5.25dB
Distortion (20Hz-20kHz, re. 0dBV)	0.0015–0.017% (MM)
Power consumption	8W
Dimensions (WHD) / **Weight**	260x100x250mm / 2.8kg (1.4kg, PSU)

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AUDIO FILE

MM/MC phono preamplifier
Made by: Exposure Electronics Ltd, Lancing, UK
Supplied by: Exposure Electronics Ltd
Telephone: 01273 423877
Web: www.exposurehifi.com
Prices: £1790 (£1010, VXN PSU)

hi-fi news OUTSTANDING PRODUCT

Exposure VXN Phono

The first 'source' item in Exposure's only-available-in-black VXN range, the VXN Phono joins two-way and three-way active crossover units and the VXN Power Supply [*HFN* Feb '20], and it's worth noting that the quoted price is potentially confusing. £1790 buys you the VXN Phono, but this will not work in isolation – you'll also need the outboard VXN Power Supply, which itself retails at £1010.

The two outputs on the VXN PSU are designed for the twin power inputs on the 'Phono, but you can add a second VXN Power Supply if you wish, feeding the left and right channels of the phono stage separately. The styling of both units is in line with the company's other components, so there's no reason not to mix and match.

The VXN Phono's circuitry is a development of that used in Exposure's XM3 phono stage [*HFN* May '17], with a broadly similar overall topology. More transistors have been added in parallel in the MC stage, for lower noise, and only polystyrene and polypropylene capacitors are used in the audio path. Inputs and outputs are via unbalanced RCA sockets only.

'This phono stage can whisper delicately or thunder magnificently'

Also, while the MM/MC switch was hosted on the rear of the XM3, it's been moved to the front of the VXN Phono. So, as the unit has separate sockets for MM and MC inputs, this means two turntables can be connected simultaneously and switched without having to fumble around the back.

Loading and gain are still selected by rear-panel unlabelled DIP switches, so best keep the manual handy if you intend to 'fiddle'. Available options are beyond reproach, however. MM loading is fixed at 47kohm, with gain settings of 40dB, 46dB, 54dB and 55dB. For the MC input these change to 54dB, 60dB, 63dB and 66dB, while resistive loading ranges in 12 steps from 32-1000ohm. So there's the promise here of a phono stage suited to a broad range of cartridges, including those with very low outputs or quirky loading requirements.

INTO THE DEEP

Used with a Yamaha C-5000 preamp [*HFN* Aug '20] and Michell Gyro SE deck, improvements over the already excellent XM3 phono stage were clear. While there was no 'look at me' artifice to the sound, the VXN Phono did seem to dig more deeply into vinyl grooves than other Exposure designs we've heard. This adds up to excellent clarity and insight, allied to commanding control.

It's a phono stage that can whisper delicately or thunder magnificently, and all with the sense of effortlessness that marks out the best. With the B-side *acapella* version of Cathy Dennis's 'Too Many Walls' [Polydor CATHX 4] it zoomed right into the essence of this simple but carefully recorded vocal performance.

Changing between different MMs and MCs illustrated the essentially neutral character of the VXN Phono, with both pick-up types benefiting from the VXN's impressively 'dark' background. However, by way of side effect, the VXN will gently point out if your records are less than totally clean!

'Sing Sing Sing' from The Syd Lawrence Orchestra's *Big Band Spectacular!* [Chasing The Dragon VALDC002] was an absolute riot to listen to. The rasp of brass instruments was a delight to behold, the percussion rang out strong and crisp, and bass was full and brilliantly detailed. A track like this should leave you breathless at the end if the system is doing its job properly, and the VXN Phono passed the test with flying colours.

ABOVE: Solid cases are distinctively 'Exposure' albeit in compact form. Gain and loading are offered around the back but the separate MM/MC inputs are switched via the fascia [top enclosure]

VERDICT

A 'working' price of £2800 puts Exposure's phono stage up against strong competition, yet it rises to the challenge with a performance that more than justifies the cost. Gain/loading options are well chosen, and its sound with both MM and MC cartridges is superb.

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 32-1000ohm
Input sensitivity (re. 0dBV)	9.83-1.68mV (MM) / 1891-492µV (MC)
Input overload (re. 1% THD)	108-17.5mV (MM) / 20.0-5.1mV (MC)
Max. output (re. 1% THD) / **Imp.**	10.1V / 48-53ohm
A-wtd S/N ratio (re. 0dBV)	82.5-87.8dB (MM) / 71.2-72.8dB (MC)
Freq. resp. (20Hz-20kHz/100kHz)	–1.7dB to +0.0dB / +0.13dB
Distortion (20Hz-20kHz, re. 0dBV)	0.0015-0.0046% (MM)
Power consumption	8W
Dimensions (WHD) / **Weight**	218x89x348mm (each) / 2kg

hi-fi news OUTSTANDING PRODUCT

MM/MC tube phono preamplifier
Made by: Manley Laboratories, Inc., CA, USA
Supplied by: SCV Electronics Ltd, Herts
Telephone: 03301 222500
Web: www.manley.com; www.scvdistribution.co.uk
Price: £3699

AUDIO FILE

Manley Chinook

With the Chinook, continually refined during its near-decade in production, Manley has created a phono amp sweet spot at £3699, blending fine sound with broad compatibility. Yet what makes the device so intriguing is that the MM/RIAA stage is all-valve. Even today, some will argue that valves are inherently too noisy to competently deal with cartridges' low-level outputs, but the Chinook proves this ain't necessarily so.

Its fascia tells you nothing, as all it holds is an on/off button. Around the back, however, it's a different story. You will, if sensible, keep the manual nearby because the Chinook's two columns of DIP switches allow, in addition to the default 47kohm loading, 31 precise settings between 26-800ohm, and seven capacitance loads of 50, 100, 150, 200, 250, 300, and 350pF. The 47kohm load is a straightforward, all-DIPs-off setting, likely to be welcomed by those with high(ish) output MCs as well as those preferring moving-magnets.

'The Beach Boys' LP is a smorgasbord of effects and concepts'

The Chinook's design springs from Manley's flagship Steelhead preamplifier, which offers a fixed/variable output, a line input, remote control, and multiple phono inputs. The more affordable Chinook only accepts one cartridge and has only one pair of outputs, both via RCAs, but this is only a hindrance if you run two or more turntables.

This phono stage has two gain options but the user has to remove the lid to get inside to change the DIPs from 45dB to 60dB, identified by Manley as its MM and MC settings, respectively. It would be preferable to see the gain switches mounted on the back, but the Chinook's PCB layout means this isn't feasible. Still, most users will set the overall gain just once, only needing to revisit this if a major component is changed, or if fitting a cartridge that affords an abnormally low or high output.

Manley president, EveAnna Manley, explains that because there's no global negative feedback deployed in the Chinook, 'it is important to select quiet tubes and FETs'. Even so, the two 6922s in the gain stage and another two 6922s for the output section can be replaced with 'any 6DJ8, 7308, ECC88 types'. Thus, if you're blessed with a supply of cherished valves, you could experiment.

BLESSED BALANCE

Manley is one of a precious few high-end audio brands – including PMC, B&W and ATC – with a genuine presence in the pro sector. With this in mind, we were not surprised by the immediate sense of analytical prowess that this phono stage imparts over LP playback. It starts with a blessed balance of openness and transparency, allied to a ghostly quietness that narrows the gap between conventional MM and MCs.

Living Presence Stereo [Fontana SFXL52/88223 DY], a 1968 various artists sampler, showcased the sheer snap of the Baroque Brass' interpretation of a 'A Taste Of Honey', with a vivid shimmer to the brass and speed to the attack good enough to expose any weaknesses in one's tweeters' behaviour.

Even more fun was Bravo Brasso's 'When I'm Sixty-Four' from *Ultimate Stereo Presentation* [EMI/Columbia STWO 3], which had rich, deep and solid bass to ensure listening never strayed into analytical mode. But it was The Tremeloes' 'Silence Is Golden' [*Dimensions In Sound*; CBS WSR 978] that really showed the Chinook's mettle. This isn't easy listening/big band material designed to display tasteful bombast, so while it had the expected silkiness, it also delivered an *unexpected* mass of bass. And moving to the late great Lynn Anderson's country classic, 'Rose Garden', the stage depth and rollicking bassline enhanced the pleasure so far beyond the track's usual AM radio presentation.

The Beach Boys box set, *Feel Flows* [Capitol 02508 80212], contains 1971's *Surf's Up*. By this time, the group were so masterful in the studio, in such control of sonic textures, that the LP is a smorgasbord of sound effects, breathtaking harmony, cavernous bass and experimental concepts. The Chinook's dynamic capabilities defied any hint of clipping or compression, while the sonic scale was utterly massive.

ABOVE: Manley's dual-mono phono stage features a discrete J-FET input feeding one of two pairs of Electro-Harmonix 6922EH triodes in the eq/output stage. With all the action, including MM/MC gain switching, under the hood the anodised slab alloy fascia couldn't be simpler. The logo is illuminated from behind by white LEDs

VERDICT

In a word: wow! Manley's Chinook ranks among the few FET/tube phono stages offering total control over matching, while the gain ensures suitability with just about any system it might face. That its irresistible performance and flexibility is achieved at £3700 is the cherry on the top.

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm / 50–800ohm
Input sensitivity (re. 0dBV)	5.16mV / 966µV (MM/MC)
Input overload (re. 1% THD)	265mV / 52mV (MM/MC)
Max. output (re. 1% THD) / **Imp.**	51V / 102ohm
A-wtd S/N ratio (re. 0dBV)	83.2dB / 65.6dB (MM/MC)
Freq. resp. (20Hz-20kHz/100kHz)	+0.04dB to –0.35dB / +3.7dB
Distortion (20Hz-20kHz, re. 0dBV)	0.0036–0.042% (MM)
Power consumption	40W (2W standby)
Dimensions (WHD) / **Weight**	483x89x279mm / 6.8kg

AUDIO FILE

MM/MC phono preamplifier
Made by: Audio Technology Switzerland S.A., Lausanne, Switzerland
Supplied by: Padood Ltd, Cambridge, UK
Telephone: 01223 653199
Web: www.nagraaudio.com; www.padood.com
Price: £17,000

Nagra Classic Phono

Swiss manufacturer Nagra turned 70 last year, but it only moved into hi-fi separates in 1997 with the PL-P, a very well specified MM/MC phono stage/preamp. This was superseded by the VPS dedicated phono stage in 2007 [*HFN* May '13], itself now replaced by the £17,000 Classic Phono tested here.

External changes include a return for Nagra's 'Modulometer' while, inside, the Classic Phono reverts to a pure tube circuit, rather than the hybrid valve/transistor design of the VPS. Here ECC81 and ECC83 triodes are used in the main gain and equalisation sections, with a pair of E88CCs used in the output stage.

> 'Underneath the vocals were rich basslines and rock-solid drum beats'

Front-panel controls cater for low/high gain and eq selection for conventional RIAA LPs, plus legacy Teldec and Columbia 'curves'. Furthermore, use the supplied Allen key to open the unit and you'll find more options under the lid...

As supplied, the Classic Phono's Input 1 is configured for transformer-coupled MC operation and Input 2 for MM, but MM or MC modules can be obtained separately and swapped in as desired. Both the MM and MC boards have six jumpers, mounted on removable PCBs for easy adjustment.

Jumper 1 selects single-ended or 'symmetrical' input, which allows pseudo-balanced operation through the RCA input sockets. Number 2 puts the optional plug-in loading modules in or out of circuit and jumpers 3 and 4 select MM or MC operation. Number 5 bypasses the internal MC transformers while number 6 adds a 47kohm load onto the valve grid.

Six loading modules are supplied with the Classic. Five confer impedances of 100, 180, 270, 470ohm and 1kohm on the MC input; the sixth adds 100pF of parallel capacitance to the MM input. Nagra also offers three more optional custom circuits for a limited time after purchase.

INCREDIBLE IMPACT

Does Nagra's 'Classic' set a new phono stage standard? Certainly, with the unit configured for MM operation and an Ortofon 2M Black tracking the black stuff, it's rare to hear such insight and sheer atmosphere – not to mention a seemingly silent background – regardless of price. Detail and clarity was astonishing as firmly struck cymbals arrived with snappy timing and incredible impact, and shimmered off into the background in a deeply alluring manner. Neil Peart's drum work on Rush's *Hold Your Fire* LP [Vertigo Records VERH 47] swept tracks like 'Mission' along with incredible pace and precision.

This sense of purity and order reached the midband, giving vocal performances perspective, depth and realism. Alison Krauss's soft intonations on 'Trouble With My Lover' [*Raise The Roof*; Warner Music 0190296548840] put us on the edge of our seat while she seemingly sat on the carpet in front of the loudspeakers. And when she and co-star Robert Plant ramped-up things on 'High And Lonesome', the Classic Phono relayed their soaring voices with no hint of strain.

Underneath these vocals were rich basslines and rock-solid drum beats. Indeed, whatever the genre, this phono stage took on all manner of low-end action with disdainful ease. Upright basses had an almost 'chewy' sense of realism, while bass guitars sounded tuneful and beautifully held within the mix.

Swapping the MM pick-up for a Cadenza Black MC, things only got better. A faint 'wispiness' to sibilants was now banished and replaced by an even greater sense of extreme treble 'air'. Nagra has engineered the Classic Phono's moving-coil step-up transformers to a tee.

ABOVE: Input rotary also serves as on/off and mute while toggles switch high/low gain, mono/stereo mode, RIAA/Teldec/Columbia replay eq and display brightness. MC input is transformer-coupled while the eq network uses ECC83/ECC81 triodes plus E88CCs as output buffers

VERDICT

Although from the outside it appears a functionally simple unit, Nagra's elegant, high-end Classic Phono has a huge range of optimisation options and delivers absolutely stunning sound quality.

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm/100pF / User-defined
Input sensitivity (re. 0dBV)	13.4mV / 4.28mV / 2.01mV / 0.64mV
Input overload (re. 1% THD)	120mV / 18mV (MM/MC)
Max. output (re. 1% THD) / **Imp.**	28.0V / 425-450ohm
A-wtd S/N ratio (re. 0dBV)	73.9dB / 76.5dB (MM/MC)
Freq. resp. (20Hz-20kHz/100kHz)	+0.35dB to –0.1dB / –0.2dB (RIAA)
Distortion (20Hz-20kHz, re. 0dBV)	0.031-0.10% (MM and MC)
Power consumption	24W
Dimensions (WHD) / **Weight**	277x300x80mm / 5.4kg

hi-fi news OUTSTANDING PRODUCT

Network-attached DAC
Made by: Auralic (Beijing) Co., Ltd, China
Supplied by: Auralic Europe, The Netherlands
Telephone: 07590 106105
Web: www.auralic.com
Price: £6799

AUDIO FILE

Auralic Vega G2.1

Look at Auralic's wide range of digital devices, all similarly styled, and it's sometimes hard to work out what does what. Further confusion arrives from the fact many Auralic products are multifunctional.

The Vega G2.1 here may be 'first and foremost a performance-focused DAC' (as the company puts it), complete with a comprehensive suite of inputs including USB-B for computer hook-up, but it's also a network player, interfacing with Auralic's Lightning DS app to play music from local storage, online streaming services and Internet radio. Via its proprietary 'Lightning Link', USB-B or streaming inputs, it will accept file formats up to 384kHz/32-bit and DSD512, and has both variable XLR and RCA analogue outputs, plus a pair of 6.35mm headphone outputs for personal listening.

'There's a directness of sound to match the fuss-free operation'

Suggested partnering products are Auralic's impressively flexible Sirius G2.1 'upsampling processor' at £6799; the £4799 Aries G2.1 streamer [*HFN* Oct '21], which brings with it the option of internal storage; and the Leo GX.1, an £8799 master clock which takes control of the digital reference for a number of Auralic units.

In practice, however, a 'solo' Vega G2.1 is a comprehensive offering in its own right, and should suffice for most. Moreover, working with the company's super-slick app, and with the bonus of its own suite of digital (and analogue) inputs, it will operate as a hub/preamp straight into a power amp or active speakers, or into a preamplifier.

Its substantially built too, with the now-familiar 'copper chassis within an aluminium outer casing' construction of all the latest Auralic models. Inside, the Vega sticks with the tried-and-tested platform seen in the Aries G2.1 [*HFN* Feb '21] and Altair G2.1, with an Auralic-modified ESS Sabre DAC combined with its proprietary 'Orfeo' analogue stage, including discrete volume control.

With so much capability here, it might take a while to work out how to set it all up, particularly if this streamer/DAC is used in conjunction with the Sirius G2.1 processor. That device has the inevitable choice of digital filters; a wide range of resampling options, so you can set a different upsampling target for just about every input format and sampling rate; an eight-band parametric equaliser; and even adjustments for gain and delay, the latter set by inputting distance, to compensate for the location of your loudspeakers relative to your listening position.

LOGICAL PROGRESSION

Employed as a standalone unit, the Vega G2.1 is every bit the excellent network player and DAC. Even its analogue line input is firmly in the top drawer, as we discovered using a Naim player via its line outs. Throughout our time with the Vega, we found it a highly entertaining performer across a range of musical styles, not least because Auralic's Lightning DS system is so simple and logical in use. It has a directness of sound to match its fuss-free operation, combining weight and presence with detail and speed.

These characteristics were as much spotlighted when exploring the jazz-prog wonderfulness of Frank Zappa's *Shut Up And Play Yer Guitar* set [Rykodisc RCD 10533/34/35] as with the relaxed blues-rock of Snowy White's *Driving On The 44* [own label, SWWF 2022], where the Vega G2.1 crafted a gloriously characterful guitar sound.

Use it with the Sirius G2.1, however, and it's possible to extract an even better performance. High-resolution playback showed no subjective advantage, but lower-res material, including CD-quality (or 48kHz/24-bit) files, enjoyed enhanced air, space and detail with the upscaler activated.

A 320kbps Radio 3 HD stream of Proms concerts sounded richer and more substantial, while guitarist Bernie Marsden's 2021 *Chess* set [Conquest Music; 44.1kHz/24-bit] gained more of the impression of a band jamming together via the Sirius, which had the effect of opening up the already weighty, driving sound of the Vega G2.1 when used on its own.

ABOVE: The Vega G2.1 has a 4in TFT display that shows input channel, volume, sample rate, playback status and configuration settings. Under the bonnet there's a linear PSU, ESS DAC solution, ladder volume control and 'Class A Orfeo' analogue output module

VERDICT

Auralic's high-end Vega G2.1 is a remarkable streamer/DAC, with a substantial, super-detailed sound, slick operational interface, and a feature list that many will view as extensive. Meanwhile, for those considering additional digital sources, the sibling Sirius G2.1 is capable of enhancing almost any audio format. Worth doubling up?

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.65Vrms / 240-300mohm
A-wtd S/N ratio (USB / Network)	116.5dB / 116.5dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.0013% / 0.00015%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.005% / 0.0003%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.1dB/–3.8dB/–5.2dB
Digital jitter (48kHz / 96kHz)	14psec / 10psec
Resolution (re. –100dBFs / –110dBFs)	±0.1dB / ±0.3dB
Power consumption	15W (14W standby)
Dimensions (WHD) / **Weight**	340x96x320mm / 9.5kg

AUDIO FILE

Network-enabled media storage device/streamer
Made by: Aurender, Gyeonggi-do, South Korea
Supplied by: Padood Ltd, Cambridge, UK
Telephone: 01223 653199
Web: www.aurender.com; www.padood.com
Price: £6700

hi-fi news OUTSTANDING PRODUCT

Aurender N200

Storage can be a thorny subject, because network products offering in-built capacity tend to either have non-expandable storage, or the option of a costly dealer-installed drive. Not so with Aurender's N200: as supplied it has no storage capacity, aside from a 240GB SSD used for caching music for playback, but its two slots take 2.5in HDDs or SSDs, bought by the user at sensible prices and easily installed.

This server/streamer's design refines one we've admired before, for example in the £19,000 A30 CD ripper/player/server [*HFN* Dec '19]. And while the N200 might be a third the price of that unit, it gives away little apart from an optical disc-drive. Circuitry and audio capability have been re-engineered for this relatively compact model, including a new low-power Intel Quad-Core processor, low-noise linear PSU, and increased system memory for smoother operation.

'The deep chords and ambient effects were chilling and ominous'

There's no built-in digital-to-analogue conversion, so the N200 needs to be used into either a suitable DAC or an amp/preamp with onboard conversion. Outputs are on USB-A and coaxial S/PDIF, alongside two further USB-A ports to which external storage can be added, and an Ethernet connection that's double-isolated to keep network noise at bay. The whole thing is poured into a high-quality machined aluminium housing with large, clear display, next to a quartet of front-panel buttons for basic control, but operation via Aurender's Conductor app is slicker.

The player is built around the principle of caching music before output, using that internal SSD to avoid glitches or drop-outs whether playing from internal hard drives, external USB storage or online services including Qobuz or Tidal. Once music is summoned from internal or external drives to the cache, the 'supplying' drive is idled to optimise audio performance.

The intention is that you use the N200's optional internal capacity to house your complete music library, loaded by simple copying from USB storage. Alternatively, you can access the N200 over a local network and drag content to its drives from your NAS library – this can be a little slow – or use Aurender's 'copy from NAS' routine for a full transfer.

PERFORMANCE PAY-OFF

Drive installation and setup was quick and easy, and with music playing via an iFi Audio Neo iDSD [*HFN* Mar '21] it was soon clear that Aurender's approach to network player design pays off. The N200 made the classy little DAC work to the best of its abilities, even when streaming from Qobuz. Pink Floyd's 'Hey Hey Rise Up' [96kHz/24-bit] was presented with a deep, dramatic opening that gave way to Nick Mason's powerful drumming and Dave Gilmour's soulful guitar.

But enough of our not-so-casual listening during setup and familiarisation: with the piano and electronica of the soundtrack from John Carpenter's *The Fog* [Silva Screen FILMCD 342], the N200 made the deep chords and ambient effects chilling and ominous, with a real sense of menace.

The same held true for the live version of Nick Cave's 'Where The Wild Roses Grow' from Kylie Minogue's *The Abbey Road Sessions* [Parlophone P015 0232], made all the more disturbing by the simple accompaniment and the contrast between Minogue's and Cave's vocals. Mind you, on this album Minogue even tingles with her string-accompanied take on 'I Should Be So Lucky' when played through this system!

Just as powerful was Mitsuko Uchida's recording of Beethoven's 'Diabelli Variations' [Decca 4852731; 192kHz/24-bit], where the N200 revealed even the slightest touch of finger on key as well as the intricacies of the writing. Meanwhile, the speed and definition of the sound was quite breathtaking, a combination that also served well a wide range of music, from the exuberant jazz of the McCoy Tyner/Freddie Hubbard Quartet's *Live At Fabrik Hamburg 1986* set [Jazzline D77100], to the full-on, guitar-driven blast of The Red Hot Chilli Peppers' 'The Heavy Wing' [*Unlimited Love*; Warner Records 093624880646].

Whatever the music, the minimal time you'll need to spend getting used to the way Aurender's N200 does things will be richly rewarded.

ABOVE: The full colour 6.9in (1280 x 480px) LCD display offers album art/information plus system details. Menu and playback controls sit to the right, but the N200 is better driven via Aurender's Conductor app running on an iPad or Android device

VERDICT

A combination of performance and sensible approach to adding user-defined hard drives makes this server/streamer a highly attractive prospect, and one that rapidly becomes a delight to use.

HI-FI NEWS SPECIFICATIONS

Digital inputs	1x Ethernet; 2x USB-A 3.0
Digital outputs	1x USB-A 2.0; 1x S/PDIF
Digital jitter (Mytek Brooklyn)	10psec (8psec via PC USB)
Digital jitter (iFi Audio NEO iDSD)	9psec (550psec via PC USB)
Digital jitter (AQ DragonFly)	150psec (300psec via PC USB)
Power consumption	14W (3W standby)
Dimensions (WHD) / **Weight**	330x96x355mm / 9kg

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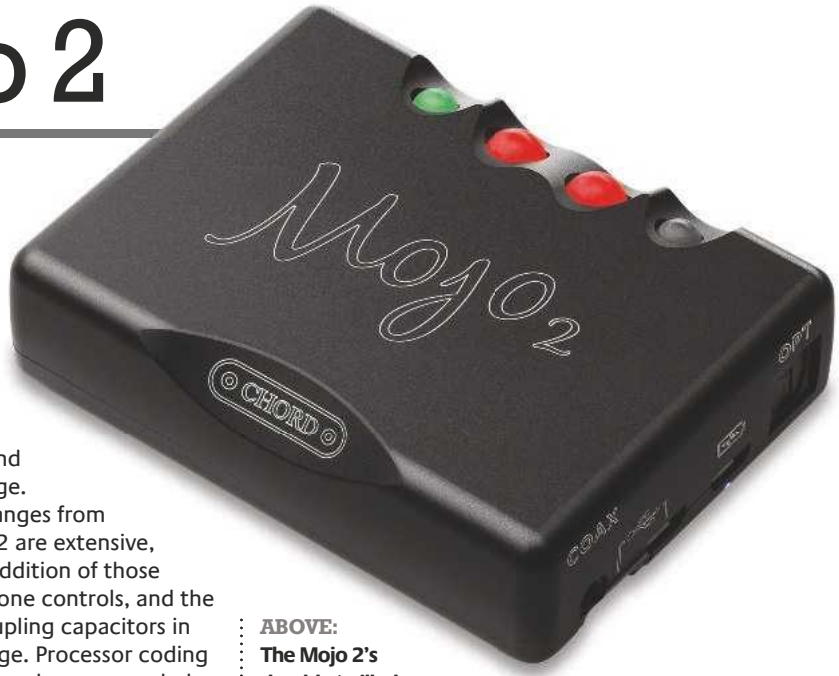
AUDIO FILE

USB DAC/headphone amp
Made by: Chord Electronics Ltd, Kent
Supplied by: Chord Electronics Ltd
Telephone: 01622 721444
Web: www.chordelectronics.co.uk
Price: £495

hi-fi news OUTSTANDING PRODUCT

Chord Mojo 2



Inundated as we are with pocket-money portable headphone amp/DACs, Chord's Mojo 2 asks the question: why drop £495 on one? But once you hear it, you'll understand, especially if top-quality sound on the move is what matters to you.

The Mojo 2 is an upgrade on the top-drawer Mojo [*HFN* Jan '16], Chord's battery-powered, smaller-than-a-deck-of-cards DAC/headphone amp. It arrives costing £100 more, but this almost feels like a nominal price hike once inflation, and the host of upgrades squeezed in, are taken into account.

Two visual clues identify the new version. The most obvious is a fourth control sphere, adding to the bespoke light show which tells you what function or level is being addressed via the new menu system. Most of these functions are secondary, but many will welcome them: access to mute, crossfeed, button-lock and tone control adjustment in addition to battery level and charging status. We almost said 'easy access', but that would be a fib. The Mojo 2's user interface is challenging to navigate.

> 'This isn't just a great mobile DAC/amp, it's a genuine bargain'

The most valuable external change is the addition of a USB-C input (768kHz/32-bit and DSD256 compatible), bringing the Mojo 2 into line with most current smartphones, MacBooks, *etc*. However, while this DAC might be purchased by some mainly as a headphone amplifier, remember that this is an exclusively digital in/analogue out device.

A 3.5mm S/PDIF coaxial socket with Toslink optical insert is another digital input, while Chord has also held onto its two 3.5mm headphone sockets, for two listeners, albeit without separate output levels for each. The retention of the original Mojo's Micro-USB port maintains support for Chord's £495 Poly add-on, which adds wireless connectivity and microSD storage.

Internal changes from Mojo to Mojo 2 are extensive, not least the addition of those 'lossless' DSP tone controls, and the removal of coupling capacitors in the output stage. Processor coding and filtering have been upgraded, the noise shaper has been improved for 'greater depth and detail', battery capacity/charging speed has been improved, and dynamic range is said to have been boosted.

MOJO RISIN'

To pitch this against the original Mojo, we used it with EQ set to flat, and employed the input types common to both. For the final verdict, however, the Mojo 2's USB-C port was used. The two were tested with a selection of headphones from Audeze and Master & Dynamic, including the former's high-end and ostensibly power-hungry LCD-5.

Both models did something wonderful, but the Mojo 2 further opened the sound to a degree that's like going from sealed-back to open-back headphones, and it did this while avoiding the sacrifice you expect to make with that transition: the loss of bass. With The Beatles' 'Come Together' [44.1kHz/24-bit FLAC 2009 remaster] there were deep, extended, solid lower octaves, in a sound space which seemed to have no boundaries.

With Mink Deville's '"A" Train Lady' [44.1kHz/16-bit AAC] the Mojo 2 further showed its mettle. The most readily discernible gain came in the vocal textures, Willy Deville's voice a challenging mix of the gravelly and the nasal. The Mojo 2 was slightly less sibilant and a hint warmer, but almost as startling an improvement was in the extension of the soundstage. The presentation really did appear wider, certainly outside of the headphone cups.

ABOVE:
The Mojo 2's durable 'milled from solid' alloy case features multi-colour, illuminated 'ball' controls for power, volume and a new menu/tone function. A rainbow of colours indicates volume level, tone band, battery status and incoming sample rate

Used as just a DAC and fed with George Harrison's *All Things Must Pass 50th Anniversary* [Capitol/Dark Horse/Apple 02435 65238], the Mojo 2 was ran alongside some costlier models which we're not going to embarrass. It delivered such a smooth, silky, open, transparent and *undigital* sound that it beat them all.

VERDICT

If you're an enthusiast who adores dual-purpose items which do more than they need to, Chord's Mojo 2 is a little miracle. This isn't just a great mobile DAC/amp, it's a genuine bargain DAC for any use.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.68Vrms / 0.44-0.90ohm
A-wtd S/N ratio (re. 0dBFs)	114.1dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00013% / 0.00075%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.0018% / 0.0020%
Freq. resp. (20Hz-20kHz/45kHz)	+0.1 to –0.06dB/–7.1dB
Digital jitter (48kHz / 96kHz)	10psec / 12psec
Resolution (re. –100dBFs / –110dBFs)	±0.2dB / ±0.7dB
Power consumption (charging)	2W
Dimensions (WHD) / **Weight**	83x23x62mm / 185g

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AUDIO SYSTEMS

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hi-fi news OUTSTANDING PRODUCT
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AUDIO FILE

Network-connected/USB DAC
Made by: Data Conversion Systems Ltd, Cambs
Supplied by: dCS Ltd
Telephone: 01954 233950
Web: www.dcsltd.co.uk
Price: £33,000

dCS Vivaldi APEX

Not content with having its own world-class D/A conversion system – the famous Ring DAC – dCS has now revised the technology, creating a new Ring DAC APEX solution. This has been rolled out in the flagship Vivaldi APEX DAC here, as well as the Rossini APEX DAC, and Rossini APEX Player. There's also an upgrade service available for existing units, priced £6000.

The Ring DAC concept may be over 30 years old, but it has been frequently refined, and still sets a stellar standard. The APEX overhaul is its most significant to date, for while the DSP core and Ring DAC resistor matrix are unchanged, the main board is entirely reconfigured with new output devices, power supply filtering and regulation.

'Its sense of enjoyment enhances the spirit of what's being played'

A menu system enables detailed setup of the Vivaldi APEX, 'tweaks' include Mapping – changing the way incoming data is presented to the DAC matrix – to a range of master clock, upsampling and filter options for both LPCM and DSD inputs. You can also define the RCA and balanced XLR outputs as fixed or variable level and with the full-scale output set to 6V, 2V, 0.6V or 0.2V to best match your amplifier. Absolute phase can be inverted and channels swapped left to right – a useful signal generator allows channels to be checked.

The rear panel remains equally comprehensive, with digital inputs comprising one optical and three coaxial, four AES/EBU (configurable as two pairs), and one asynchronous USB supporting 384kHz/24-bit LPCM and DSD128 in DoP. There are also three Word-Clock inputs/one output on BNCs for synchronising the Vivaldi DAC with other digital components, including the £36,000 Vivaldi CD/SACD transport.

Also unchanged are the means of control, including the company's immaculately finished remote, complete with volume rotary, and the well-sorted and flexible Mosaic app for iOS and Android.

MORE... HUMAN

Our listening started from a position of familiarity, as a Vivaldi One [*HFN* Feb '18] has been in PM's room for some years. It's an excellent DAC, particularly when used as an analytical tool, yet there's been something slightly *too* precise about its sound – if that's not a contradiction – and a reluctance to let rip and tingle the spine.

Or perhaps that feeling's just a reaction to what the new Vivaldi APEX DAC can deliver. Heard here were all the technically accomplished bits of the old Vivaldi, but with a new sense of enjoyment that enhances the spirit of what's being played. Simply, the Vivaldi APEX DAC sounded more natural, more organic, more… human.

As ever, a host of digital filters offers a chance to do very subtle 'tuning' of the sound. However, what's striking is that, whichever you choose, that sense of greater involvement is maintained across a range of file formats and genres. Thus, with the McCoy Tyner/Freddie Hubbard set from Fabrik, Hamburg [Jazzline D7710], there was a fine sense of presence from what is certainly not an audiophile recording. 'Round Midnight' had a sultry warmth, and wonderful dynamics and gorgeous timbres. It held attention such that the music seemed to pass all too quickly.

On a grander scale, Mitsuko Uchida's reading of Beethoven's *Diabelli Variations* [Decca 4852731; 192kHz/24-bit] showed the DAC at its best. It did the technical stuff superbly, placing the piano on stage in the acoustic, and its performance proved utterly captivating as Uchida tackled what's often described as 'the Everest of piano'.

With The Stones' grubbier 'Fingerprint File' [*It's Only Rock 'N Roll*, Rolling Stones Records UIGY-9069; DSD64], the massed instruments were easily unpicked, from Jagger's vocal to the chugging backing of bass and percussion. But above all, it made listening to the track a blast, thanks to tight rhythmic control and illumination of the smallest details.

ABOVE: The Vivaldi's flowing curves are milled from a substantial slab of alloy. It can be controlled via the rotary and row of buttons, but dCS's huge IR remote and Mosaic control app are more convenient

VERDICT

In this latest APEX implementation dCS's Ring DAC has rediscovered a sense of fun, making the new Vivaldi not just a highly accomplished piece of high-end hi-fi, but an absolute pleasure to listen to.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	5.885Vrms / 480mohm (XLR)
A-wtd S/N ratio (LPCM / DSD)	117.1dB / 116.8dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00004% / 0.00009%
Dist. & Noise (20kHz, 0dBFs/–30dBFs)	0.00025% / 0.00025%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.04dB/–0.7dB/–7.3dB
Digital jitter (48kHz / 96kHz)	120psec / 10psec
Resolution (re. –100dBFs / –120dBFs)	±0.1dB / ±0.3dB
Power consumption	21W (1W standby)
Dimensions (WHD) / **Weight**	444x151x435mm / 16.2kg

hi-fi news OUTSTANDING PRODUCT

USB DAC/headphone preamplifier
Made by: HEM Ltd, Poland
Supplied by: Signature Audio Systems
Telephone: 07738 007776
Web: www.ferrum.audio; www.signatureaudiosystems.co.uk
Price: £2395

AUDIO FILE

Ferrum ERCO

Given that all of Polish brand Ferrum's products basically look the same, it's not immediately clear that the £2395 ERCO is the most comprehensively equipped model the company has made to date: a complete 'just add computer and headphones' solution for desktop audio, including a USB input and onboard DAC. And, really, that's just the beginning of what it is…

It will also function as an analogue headphone amp via RCA line-ins, as well as a preamp straight into a power amp or pair of active speakers. Variable-level outs are offered on RCAs and balanced XLRs, and the analogue inputs are passed, via a line stage, to the outputs via an ALPS volume control, minus the ADC/DAC chain you'll find in most DAC/amps with analogue inputs.

'A wide-open, detailed sound offering plenty of sparkle and heft'

The ERCO is also decidedly well-equipped by desktop hi-fi standards. The 'computer audio' input is on a USB-C port, and can accept an admirably wide range of formats, with PCM up to 384kHz/32-bit and DSD to DSD256, plus MQA decoding/rendering to suit Tidal surfers. Meanwhile, for the ESS Sabre ES9028PRO-based digital section, Ferrum has created a custom filter, rather than give the user the mind-boggling choice of filters this DAC offers as standard. This filter is part of a suite of digital management strategies – the team has written its own code, running on an ARM processor, to optimise the performance of all digital ports and handle the MQA functions. The audio path is fully balanced from the DAC to the modified IC amplification used for the outputs, which is rated by Ferrum at 300mW/300ohm and 1.7W/50ohm (unbalanced), and 1.2W and 6.1W into the same impedances via the balanced feed.

An easy-to-understand front panel manages input selection, and aside from a large volume control, the only other setting is for headphone amplifier gain, which offers three settings each for the ERCO's 4.4mm Pentaconn (balanced) and 6.35mm (unbalanced) sockets.

The rear panel has two power inputs – one for the supplied 'wall-wart', plus a Power Link connection for Ferrum's Hypsos programmable PSU [*HFN* Mar '21].

BREATHE EASY

This compact amp is simple to set up and use, whether in desktop or main system applications, letting you get into your music as soon as possible. Which you'll want to – used as a DAC into various preamps and integrateds, the ERCO impresses with a wide-open, detailed sound possessing plenty of sparkle and heft.

Playing a stupidly extended Carl Palmer drum solo from *The Silent Choir* ELP live set [ELP/Lo-Light Records download], it made the most of the slightly murky 1971 live sound. Palmer's drums thundered and cymbals sizzled, as they should, while switching to headphones realised a performance that was even gutsier and tightly paced.

The sound here is all about control, effortless power and clean refinement. Well, unless the music is a bit on the grubby side, and needs some grit served up with it, in which case that's just what the ERCO delivers. However, play it sweet and low with the likes of Barbara Hannigan's *Dance With Me* [Alpha Records ALPHA790; 96kHz/24-bit download] and the ERCO's amplifier settles into a wonderfully lush and nostalgic shimmer. Even without any crossfeed trickery there was a lovely sense of soundstaging and presence via headphones.

The cascading rhythms of the Filharmonie Brno recording of Philip Glass's *12th Symphony* [Orange Mountain Music, Bandcamp download; 96kHz/24-bit] were tackled with courage, as the ERCO charged through big, percussive moments bolstered by its resolution and dynamic power. It was all rather strangely magnificent, as it was with Doug MacLeod's bluesy, intimate *A Soul To Claim* album [Reference Recordings, Fresh! FR-746; 44.1kHz/24-bit]. No messing about or manipulation needed: this amplifier just let the music breathe.

ABOVE: Matching the compact casework of Ferrum's Hypsos and OOR [see p67], the ERCO's fascia hosts balanced/SE headphone outs, digital/analogue input and gain selection plus volume. At the rear analogue in/outs are joined by optical, coaxial and USB-C digital inputs

VERDICT

The high-end DAC/headphone amp sector isn't a barren landscape, but Ferrum's ERCO sits at the top of the hill, typically driving headphones to stunning effect whether with gritty blues or whirling orchestral strings. It has focus, finesse and control, but a heart of iron too.

HI-FI NEWS SPECIFICATIONS

Maximum line output level / Impedance	2.58Vrms / 22ohm
Power output (<1% THD, 600/32/8ohm)	157mW/2450mW/1600mW
Distortion (DAC; 20Hz-20kHz, 0dBFs)	0.00009-0.036%
Distortion (headphone; 20Hz-20kHz, 10mW)	0.00025-0.00075%
Freq. resp. (DAC; 20Hz-20kHz/45kHz)	+0.0 to –0.14dB/–10.4dB
Freq. resp. (headphone; 20Hz-20kHz/100kHz)	+0.0 to +0.1dB/+0.6dB
A-wtd S/N ratio (DAC / headphone)	108.8dB / 96.0dB
Power consumption	23W (via Ferrum Hypsos)
Dimensions (WHD) / **Weight**	217x50x206mm / 1.8kg

AUDIO FILE

Battery-powered headphone amp/DAC
Made by: iFi Audio, China
Supplied by: AMR/iFi Audio (Abbingdon Global Ltd), Southport
Telephone: 01704 543 858
Web: www.ifi-audio.com
Price: £599

hi-fi news HIGHLY COMMENDED

iFi Audio xDSD Gryphon

Since launching in 2012, iFi Audio has built a reputation by releasing compact, affordable and often portable audio products at a rapid pace. Not all are entirely 'new', as it likes to 'tweak' its products, which is why the xDSD Gryphon tested here both follows the xDSD DAC [*HFN* Jul '18], and acts as a successor to the xCAN [*HFN* Feb '19].

True to form, the Gryphon is a pocket-sized unit packed with inputs, outputs and a few tone/eq features unique to iFi Audio, plus an internal battery rated up to eight hours, depending on usage. It's slightly larger than its predecessor, but looks a little sleeker and has improved ergonomics. The centrally placed volume button is more user-friendly than that of the original xDSD, as are the controls.

A major new addition is the top-mounted OLED display. During operation this shows the selected input, volume level and format of the incoming audio stream, and is bright enough to be viewed even in strong sunlight. It's far better than the colour-coded LED lighting scheme on the first-gen xDSD.

'You get a real sense of the character of Richter's instruments'

Streaming via Bluetooth caters to mobile listening, and iFi Audio seems determined to make it as high quality as possible, utilising Qualcomm's top-spec QCC5100 silicon and supporting a wide range of compression codecs, including AptX HD and LDAC. Other input options are USB for hi-res audio from a computer or network transport, plus S/PDIF. A third-party DAC can also be hooked up via single-ended or balanced 4.4mm Pentaconn rear-panel connections. Around the front there's a similar dual-port arrangement of 3.5mm single-ended and 4.4mm balanced headphone outputs.

For the digital side, iFi Audio is using the same 768kHz/DSD512 DAC, together with an XMOS micro running homegrown firmware, that we saw in the £3249 Pro iDSD Signature [*HFN* Jan '22], but note the latter contains *four* of the DAC chips in an interleaved configuration, not just one. In a further example of trickledown, the Gryphon's headphone amplifier is inspired by the dual-mono NEO iDSD desktop model [*HFN* Mar '21].

POCKET POWER

The Gryphon's spec suggests it ought not be fazed by a demanding headphone, and listening with both a Beyerdynamic DT 1990 Pro and Sennheiser HD 650 supported this. The energy to present 'Franacapa' from *Alessandro Quartra Plays Astor Piazzolla* [IAN Solutions LC30467; 96kHz/24-bit ALAC] in its full, fast-paced intricacy was certainly there on Sennheiser's difficult-to-drive HD 650, including the long low note played on a contrabass at the end of each main section. A quick comparison with the decidedly not-portable Ferrum ERCO [see p56] did reveal the headphone could unleash more, but the affordable Gryphon certainly proved an able partner. In contrast, the original xDSD handled this track competently but with less authority.

IFi Audio's XBass II analogue processing is worth experimenting with, as it manages to narrowly boost lower frequencies without suppressing the lower mid. Its effect is enjoyable too, ensuring the drone beat on 'Release' by Kelly Lee Owens [*LP.8*, 48kHz/24-bit FLAC] dominates the track without darkening it. Approach with care, though – on a bass-oriented headphone the processing can be too much.

XSpace, a crossfeed mode for a loudspeakers-in-the-room effect, is more of a mixed bag. It conjures a sense of grandeur, but often at the expense of natural tonality. This is an area where the Gryphon otherwise excels; with Max Richter's *Vivaldi Recomposed (2022)* [DG 4862468; 96kHz/24-bit FLAC] it was possible to focus on the strings in the background of 'Spring 3' and discover heaps of texture, getting a real sense of the character of the Baroque era instruments.

ABOVE:
The Gryphon's slimline alloy case is light, rugged and features an OLED screen carrying a host of details, including battery life. Power/volume/menu dial is flanked by input and XSpace/XBass II processing plus 3.5mm and 4.4mm headphone outputs

VERDICT

This DAC/amp brings useful features and superb sound to a tempting price, and is suited to both those seeking an on-the-go upgrade and audiophiles feeding demanding headphones at home. IFi Audio's impressive track record continues.

HI-FI NEWS SPECIFICATIONS

Maximum output (re. 0dBFs into 47kohm)	2.28V (unbalanced line out)
Max. power output (re. 0dBFs into 32ohm)	314mW (headphone out)
Output Impedance (20Hz-20kHz)	490-510mohm (headphone)
A-wtd S/N ratio (0dBFs / re. 10mW)	106.7dB / 100.8dB
Distortion (20Hz-20kHz, line / re. 10mW)	0.009-0.013%/0.008–0.015%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.2dB/–0.4dB/–0.7dB
Digital jitter (48kHz/24-bit data)	<10psec
Power consumption	3600mAH battery
Dimensions (WHD) / **Weight**	75x19x123mm / 215g

hi-fi news OUTSTANDING PRODUCT

Network-attached player/preamp/DAC
Made by: Pixel Magic Systems Ltd, Hong Kong
Supplied by: Sound Design Distribution Ltd, Cardiff
Telephone: 0800 0096213
Web: www.luminmusic.com; www.sounddesigndistribution.co.uk
Price: £8495

AUDIO FILE

Lumin P1

As is often the case with network audio products, a question concerning the Lumin P1, £8495 in a choice of silver or anodised satin black casework, is what it is *exactly*. The company suggests it can be just about anything you want: a network player, a DAC, a preamp (complete with analogue inputs), or all three. It can even function as a two-channel audio processor for a home cinema, courtesy of its HDMI connectivity.

So, while this isn't quite Lumin's flagship – that's the £11,495 X1 – it's a remarkably capable and flexible device. And, thanks to the excellent Lumin app, it's one that's easy to set up and operate.

The P1 stands 10.4cm tall – not least, we suspect, to give it the rear-panel space to accommodate all its inputs and outputs in addition to housing the shielding for its dual-toroidal power supply. As well as HDMIs and conventional digital inputs on AES/EBU, coaxial and optical, there's an asynchronous USB-B port and analogue ins on both XLR and RCA sockets.

> 'It was hard not to be wowed by the "piano in the room" effect'

For networking there's Ethernet on an RJ45 port, plus an SFP fibre socket that allows the P1 to be electrically isolated from the network to which it's connected. Both options can be used at once, for example connecting to a user's home Internet service via Ethernet, and direct to a NAS containing music via fibre.

Outputs are also comprehensive. Both balanced XLRs and unbalanced RCAs are provided, configurable as fixed- or variable-level, and are joined by digital outs on BNC and USB-A should you intend to hook the unit into an external DAC. However, given the performance of the P1's own dual-mono, fully-balanced DAC stage – supporting up to 384kHz/32-bit LPCM and DSD512 – and its analogue output, we're not sure why anyone would want to.

SPARKING INTO LIFE

However you use it – as a DAC, preamp/player or Roon endpoint – the P1 delivers a sound able to grab your attention from the off. With the driving rhythms of Sparks' 'Bullet Train' [*Balls*; BMGCAT550CD], it laid down a solid bass and opened up the dense mix. Also, with the lush Toni Visconti mix of 'The Angels', the wide, deep soundstage the player allowed added enormously to the ambience of the track.

This combination of weight and clarity dovetailed well with the psychedelic metal of Somali Yacht Club's 'Echo Of Direction' [*The Space*; Season Of Mist SOM 648D]. All the complexities of the recording – from gentle rock and multi-layered vocals to crashing guitars and thundering rhythm section – could be appreciated in their magnificence.

ABOVE: Available in black or natural finishes, the stylish P1 features a machined alloy fascia and deep set, dimmable display. Under the bonnet, two ES9028PRO DACs form part of a balanced analogue stage that includes Lundahl output transformers. Lumin also provides an IR remote but most controls are in the app

This same superb openness was beneficial with the exuberance of Florian Sempey's *Figaro? Si!* recital of Rossini [Alpha 791D; 96kHz/24-bit], where the speed of the playing of the accompanying orchestra, and the richness of the soloist's voice, were handled well. Meanwhile, a glorious grasp of instrumental timbre made the level of detail in Jan Gunnar Hoff's *Home* set [2L 168; DXD] simply breathtaking. Combine the P1 with a suitably revealing system, and it's hard not to be wowed by the 'piano in the room' effect of this masterful recording.

There are various volume options here, including the (third-party) Leedh lossless processing system, which brought a shade more detail when playing with low output settings, whether into a unity gain input on a preamp or straight to a power amp. Mind you, the sound appeared even more convincing when the P1 was used as a player via its fixed 'maximum' output.

But while differences observed between these options were interesting, if subtle, they were minimal compared to the benefits of adopting the fibre connection for network music playback. Excellent though the Ethernet feed may be, switching to fibre just brought that extra snap into focus, and details 'popped' a little more, further increasing the P1's ability to enthral with music both new and familiar.

VERDICT

Yes, the Lumin P1 is undoubtedly expensive, but the fact that it looks and sounds so striking, works so seamlessly with its app, and has all the flexibility most will ever want, means it's an attractive buy for any high-end connected system.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	5.80Vrms / 18ohm
A-wtd S/N ratio (Digital / Preamp)	118.0dB / 82.2dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00006% / 0.0011%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.0003% / 0.0022%
Frequency resp. (20Hz-20kHz/45kHz)	+0.0 to –1.2dB / –5.1dB
Digital jitter (48kHz / 96kHz)	9psec / 11psec
Resolution (re. –100dBFs / –110dBFs)	±0.1dB / ±0.2dB
Power consumption	19W (19W standby)
Dimensions (WHD) / **Weight**	350x107x380mm / 12kg

AUDIO FILE

CD player/USB-A DAC
Made by: Sound United/D&M Holdings, Kanagawa, Japan
Supplied by: D&M Audiovisual Ltd, UK
Telephone: 02890 279830
Web: www.marantz.com/en-gb
Price: £749

Marantz CD 60

There's little dispute that the CD format offers great lossless fidelity and costs next to nothing secondhand, which is why talk of a 'CD revival' is underway. Whether that's true or not, Marantz isn't missing the boat, launching the £749 CD 60 as a partnering disc-spinner for its Model 40n streaming amplifier [see p84], or whatever amp tickles your fancy.

The CD 60 is available in black or silver/grey, and embraces the same design approach as the Model 40n, and Model 30 amplifier and SACD 30n network disc player [*HFN* Jan '21] – minus the side-lighting of those models. Still, the understated styling of the fascia, along with the high level of workmanship on show for the rest of the case, makes the CD 60 a clear cut above regular budget-level disc spinners.

> 'A level of insight that never felt clinical, and a superb sense of fluency'

On the rear panel, the focus on CD playback, be it with standard Red Book discs or data discs containing music files, is clear enough from the default analogue and S/PDIF outputs. Playing SACDs is not possible, and neither should you look for digital inputs to connect a digital source – network, USB-B or legacy S/PDIF. The reasoning from Marantz HQ is simple: 'we don't think people buy a CD player in this price range to use it as an external DAC'. Nevertheless the CD 60 is not entirely confined to the world of 44.1kHz/16-bit digital audio, as it does include a USB-A port on its main faceplate, capable of playing a wide variety of formats (including FLAC, ALAC, AIFF and WMA) up to 192kHz/24-bit, plus DSD128. Playback via the buttons on the front panel or the bundled remote control is somewhat fiddly, though.

For this model, Marantz uses an ESS DAC rather than its own MMM solution – for that you'll have to head to the three-times-the-price SACD 30n. Any digital 'features' are necessarily limited, but there are two filter choices. Filter 1 is supposed to be closest to the 'traditional' Marantz sound, while Filter 2 is a bit snappier in terms of bass.

If the absence of standard digital inputs gives the impression that the CD 60 is a stripped-down player, this is not exactly true of the internal engineering, and of the analogue stage in particular, which employs a version of the brand's familiar, discrete HDAM op-amp.

AUTHENTIC AUDIO

This proprietary circuit gives Marantz the flexibility to fine-tune products to its liking, and it contributes to the CD 60 sounding authentically 'on brand' whether from CD or file, and over speakers or headphones. There's a smooth, organic feeling to its sound, and the sense that all musical elements are being treated with equal care.

Górecki's 'Symphony No. 3 Op. 36', as performed by Beth Gibbons and the Polish National Radio Symphony Orchestra [Domino WIGCD395X], is a powerful, melancholic work, and the CD 60 gave it an excellent rendition. Gibbons' performance had a vocal richness, and the orchestra sounded expansive. With a Primare I15 amplifier [*HFN* Oct '18] and Canton Reference 7K floorstanders [see p97] it was noticeable what this disc-spinner was bringing to the table with its added warmth and impressive stereo imaging.

The quality of the CD 60's audio 'tuning' was also clear when connecting a headphone to its front-panel output. It has the ability to drive rather 'difficult' headphones, and scores further points for providing no fewer than three amp gain settings – a feature not found on most disc players.

Thom Yorke's voice was backed by a massive, immersive soundstage on Radiohead's 'Everything In Its Right Place' [*Kid A*; Parlophone 7243 5 27753 2 3], the CD 60's smooth demeanour only slightly softening the track's overall impact. Meanwhile, Philip Glass' dreamlike *Solo Piano* set [CBS MK45576] showcased a level of insight that never felt clinical, and a superb sense of fluency. Indeed, some of the piano runs were positively 'organic'. If this is music that, when casually heard, may come across as mundane, then the CD 60 will grab your interest with its rich and enveloping delivery, encouraging a long and rewarding listen.

ABOVE: Styling is culled from recent Marantz amplifiers, but there's no 'mood lighting' here. Bold display covers CD track, CD Text, time info, *etc*, and scrolls through files on connected media. Under its bonnet, the CD 60 features an ES9016K2M DAC and discrete HDAM op-amps driving the analogue output

VERDICT

The luxurious CD 60 appeals as an above-average, but still affordable, disc spinner – and for Model 40n owners looking to revive their CD collection, it's a no-brainer.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.17Vrms / 91-94ohm
A-wtd S/N ratio (USB-A / CD)	110.0dB / 109.9dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00014% / 0.0011%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.00045% / 0.0045%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.8dB/–3.0dB/–5.3dB
Digital jitter (USB-A / CD)	8psec / 115psec
Resolution @ –100dBFs (USB-A / CD)	±0.1dB / ±0.2dB
Power consumption	17W (1W standby)
Dimensions (WHD) / **Weight**	442x129x396mm / 7.5kg

Objects of Desire

MONITOR AUDIO

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AUDIO FILE

Network-attached DAC/streamer
Made by: Matrix Electronic Technology Co. Ltd, China
Supplied by: Signature Audio Systems, UK
Telephone: 07738 007776
Web: www.matrix-digi.com/en; www.signaturesystems.co.uk
Price: £3250

Matrix X-Sabre 3

China's home-grown brands are upping their game and making inroads into markets once dominated by Western and Japanese names. A case in point is Matrix Audio's X-Sabre 3, which follows the X-Sabre Pro DAC [*HFN* Nov '17], Element X [*HFN* Jan '21] and Mini-i Pro 3 [*HFN* Feb '22].

This is Matrix's new flagship, carrying a £3250 price tag and cloaked in the company's 'hewn from solid' aluminium casework. Available in silver or black, it's a sleek-looking device, 31cm wide and only a smidge over 4cm tall. With its bevelled fascia treatment, slender bar of touch controls, and small circular display, it has a very classy, slightly mysterious look.

> 'You don't have to go for "big" recordings to hear what this DAC can do'

Like the X-Sabre Pro, the X-Sabre 3 eschews headphone amp functionality. So this is a purely line-out device on RCAs and balanced XLRs, although it does offer a choice of fixed- or variable-level output, allowing it to be connected straight into a power amp or active speakers using its DSP-driven volume control. Operation is via its supplied remote, MA app, or as part of a Roon system. For that last option you'll need an external device running Roon Core software or Roon OS.

You can connect the X-Sabre 3 to a computer via its USB-B input, but there seems little point when the unit has its own onboard streaming implementation, fed via either Ethernet or Wi-Fi. Meanwhile, for those with 'legacy' digital gear, the X-Sabre 3 has coaxial and optical S/PDIF inputs plus an I^2S-LVDS input, on an HDMI connector, for suitable sources including Matrix Audio's own outboard X-SPDIF 2 USB interface/digital format converter.

The USB, network and I^2S-LVDS connections offer the widest format handling, working up to 768kHz/32-bit and native DSD512. As befits a device with high-end aspirations there's no Bluetooth here, but the X-Sabre 3 can offer Apple AirPlay 2 connectivity with portable devices – and computers running Apple Music – over the user's home network.

As this new model looks like the X-Sabre Pro, and offers a similar range of capabilities, we're bound to ask what's new, aside from the built-in streaming technology. The answer is 'quite a lot', as everything here has been revised and upgraded, from the casework and internal architecture to the new quad-core Cortex-A9 processor.

RING THE GONG

Digital-to-analogue conversion is in the hands of an ES9038PRO DAC chip with Crystek CCHD-950 clock, allowing it to work in asynchronous or synchronous mode. The former, asynchronous upsampling, is definitely preferable thanks to notably reduced jitter in our Lab tests, though choosing between the X-Sabre 3's range of user-selectable digital filters was trickier, as we had no consistent preference.

Even with the live bonkersness of Gong's *Pulsing Signals* album [Kscope download], it was clear the X-Sabre 3 sounded best either streaming directly or using a Mac computer as the source, connected via USB and with the DAC running in asynchronous mode. Synchronous working brought (even more) confusion to the chaotic tracks, a trait also apparent when clearer, cleaner recordings were loaded up.

This established, the X-Sabre 3 proved capable of a breathtaking sound, as it was with the intense focus of the Trío Arriaga's *Elegie* set of Tchaikovsky and Shostakovich [Eudora EUDDR2201; DSD256]. Listening to this remarkable ensemble, there was glorious presence in the instrumental timbres, plus a fine sense of the dramatic interplay between the three musicians.

You don't have to go for big 'warhorse' recordings to hear what this DAC can do, as evidenced by the percussive impact and intimate breathiness of Espen Eriksen and Gunnar Halle's simplistic *Sangboka* [Unit Records 5301; 96kHz/24-bit]. But nor must you stick to a diet of delicate, close-miked music – there was no shortage of weight and drama with the Swedish Chamber Orch/Thomas Dausgaard cycle of Brahms symphonies [BIS 1756/2253/2319/2383], and even the slightly thin sound of Steely Dan's *Mobile Homes*, taken from a 1974 radio broadcast [Wicker Man WKMCD029], made for a fascinating listen, the clarity of the X-Sabre 3 giving a thrilling account of the breakneck-paced 'Bodhisattva'.

ABOVE: The X-Sabre 3's machined-from-solid alloy case includes a tiny but sharp display and soft-touch fascia controls – the icons to the right access the settings menu, filters and sync mode. The casework is divided into 'compartments' that separate and screen the toroidal PSU transformer, the main digital/analogue PCB, and display section

VERDICT

Matrix Audio's stylish networked DAC rewards with a compelling sound that digs deep into fine recordings without making the rough stuff unlistenable – all this plus solid heft and good presence.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.74Vrms / 225ohm (XLR out)
A-wtd S/N ratio (S/PDIF / Network)	117.1dB / 116.9dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00001% / 0.00035%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.00025% / 0.00045%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.0dB/–0.5dB/–1.0dB
Digital jitter (48kHz async/sync; 96kHz)	6psec / 145psec / 8psec
Resolution (1kHz @ –100dBFs/–110dBFs)	±0.1dB / ±0.25dB
Power consumption	9W (2W standby)
Dimensions (WHD) / **Weight**	310x43x218mm / 3.4kg

hi-fi news OUTSTANDING PRODUCT

Network-enabled media storage device
Made by: Buffalo Technology, Japan
Supplied by: Audiophile Digital Music Masters Ltd, UK
Telephone: 01252 784525
Web: www.melco-audio.com; www.audiophiledigital.co.uk
Prices: £6999 (H50)/£8999 (S38)

AUDIO FILE

Melco N10/2

There are two distinct Melco families: the full-size N1, and the half-width N10, of which the N10/2 models – the £6999 N10/2-H50 and £8999 N10/2-S38 flagship – are the latest iteration. The two prices reflect storage: the 2-H50 offers 5TB of conventional HDD, while the 2-S38 packs 3.84TB of (solid-state) SSD.

As you might expect, given Melco's roots in Japanese computer company Buffalo, the new drives are of a dedicated design, optimised for the 'write once/read many' working of a music library system. A new mainboard, originally developed for the 45th anniversary limited edition of the N10, also graces both.

'It's hard to argue with the value this brings to "digital" systems'

In terms of setup and use, much here will be familiar to existing Melco users. The N10/2 has twin Ethernet sockets for connection to both your network and to a network player, and three USB ports to accommodate external storage, a CD ripper, and a USB DAC (384kHz/32-bit and DSD 512 is supported). It's even possible to use the N10/2 as a source for a USB DAC *without* the network connection, 'pushing' digital audio data straight out of its USB port, and it can also access streaming services including Tidal, Qobuz and vTuner Internet radio via the Melco Music HD app.

Much of the beauty of the Melco experience is down to the 'behind the scenes' development of the company's Intelligent Music Library suite, which combines MinimServer and SongKong music file management software to give an attractive interface with extensive, logical metadata tagging. All this happens without any user intervention, making finding and playing music simple and intuitive.

ART OF PERSUASION

For the purposes of this audition we stuck to using the Melco N10/2 as a source for a selection of dedicated USB DACs, from a Matrix Audio X-Sabre 3 [see p61] down to a Chord Electronics Mojo 2 [p53]. And even with the £495 Chord DAC the N10/2 sounded spectacular.

Playing the gloriously detailed *Lamento* set by Marianne Beatte Kielland and Oslo Circles [Lawo LWC1226; DXD], the Melco/Chord combination delivered a sound dripping with the ambience of the church recording venue. The soloist and period instruments were placed persuasively before the listener – the voice was simply luminous, hanging in space, while the delicate accompaniment filled the soundstage with atmosphere.

It was a superbly immersive and precise audio experience, and that resolution was just as apparent in the 192kHz/24-bit remaster of Eric Clapton's *461 Ocean Boulevard* album [Polydor], where the Melco/Chord pairing slammed into the opening 'Motherless Children' with all guns blazing before settling back into the lushness of 'Give Me Strength' and the sweet harmonies of 'Let It Grow'.

Melco's two-box N/10 also worked supremely well with Matrix Audio's X-Sabre 3 DAC when it came to the big, dramatic stuff, such as the Bergen Philharmonic/Gardner recording of Britten's *Peter Grimes* [Chandos CHAN5250W, 96kHz/24-bit]. Here it crashed out all the fury of the famous 'Storm' interlude without losing track of any of the instrumental textures, and at the same time conveyed the uneasy atmosphere of the fishing village and its outcast, culminating in its bleak, desolate finale. This recording is possessed of breathtaking dynamics and tiny nuances in equal measure, and this combination revealed them all.

ABOVE:
There's little to distinguish this mk2 N10 from Melco's first two-box music library except the 'global' on/standby switch is now moved from the PS10 PSU [bottom] to the head unit [top]. The latter still offers simple four-button navigation and a USB port for loading music

VERDICT

It's a costly way to feed a USB DAC, and the onboard storage capacity may limit those with huge libraries, but the N10/2 goes about its task so convincingly that it's hard to argue with the value it brings to 'digital' systems. This, plus its slick interface and metadata handling, makes it a sophisticated digital front-end.

HI-FI NEWS SPECIFICATIONS

Digital inputs	1x Ethernet; 2x USB-A
Digital outputs	1x USB 2.0 Type A; 1x Ethernet
Digital jitter (Mytek Brooklyn)	7psec (8psec via PC USB)
Digital jitter (iFi Audio NEO iDSD)	10psec (550psec via PC USB)
Digital jitter (Chord Mojo 2)	10psec (15psec via PC USB)
Power consumption	10W
Dimensions (WHD) / **Weight**	215x61x269 (273)mm / 8.5kg (total)

AUDIO FILE

USB DAC/headphone amplifier
Made by: Musical Fidelity (Audio Tuning Vertriebs GmbH), Austria
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: www.musicalfidelity.com; www.henleyaudio.co.uk
Price: £2099

Musical Fidelity M6x

Coming from the brand's upper-tier M6 series, the M6x is Musical Fidelity's priciest DAC, and the latest evolution of a product that originated around a decade ago. There's been plenty of progression through the M6 [*HFN* Mar '13], M6s [*HFN* Jan '18] and M6sR models, both outside and in, but a few things haven't changed, including the absence of network streaming. This is an 'old-school' DAC that supports only external sources.

Connections include a USB-B input for computer playback, twin optical and single coaxial options, and a new-for-this-generation AES/EBU socket. All of which ought to be more than enough for anyone who isn't desperate to stream direct from a NAS device or smartphone.

The M6x also has a traditional design to go with its traditional feature set. The full-width chassis (available in black or silver) is 10cm tall and extends back 39cm, making it a clear relation to the phono stage, CD player, and pre/power options of the M6 lineup.

'Here was the snarling fury the band intended of the album's opener'

Inside, a proprietary 'Super Silent' toroidal transformer is linked to an 'industrial-grade' AC socket with EMI filter and DC blocker, and feeds into a custom PCB with XMOS processor and Altera CPLD (complex programmable logic device) silicon.

This model differs most obviously from its forebears in Musical Fidelity's choice of DAC, the ES9028PRO replaced by two ES9038Q2M chips here. Format support extends to 768kHz/32-bit and DSD512 through the USB input, and up to 192kHz/24-bit over S/PDIF and AES/EBU. There's also MQA compatibility on all connections.

A choice of seven digital filters, plus additional 'upsampling' and 'reclocking' modes, are offered for sound tuning. However, Musical Fidelity suggests using the default settings to begin with, and to only start comparing filters once you are comfortably 'in the groove'...

RICH PICKINGS

Musical Fidelity by name, musical fidelity by nature? Certainly, the M6x's sound – unfatiguing but precise, rich yet clear, lively yet not hysterical – is beautifully well-judged. Any grumbles about the lack of networking are forgotten as the DAC rams home the 'outboard' concept with panache.

Listening to Fleetwood Mac's *Rumours* [Rhino Records, 96kHz/24-bit], it became hard to do anything *but* listen, such was the sense of detail and directness that was evoked. 'Gold Dust Woman' featured ringing cowbell stage right and guitar and electric harpsichord sounds with scads of texture, while Stevie Nicks' plaintive verses had just the right mix of fragility and power. The DAC seemed to find each and every aspect and amplify it, without getting in the way of the mood and rhythm of the piece. In the equally emotive 'Dreams', meanwhile, John McVie's bassline was delivered with a warmth and body that acted as a canvas for lighter elements to bounce off.

Differences between filters 1-7 are subjectively slight, which makes the impact of the 'low latency' filter (number 8) all the more noticeable – with this in play, the M6x acquired a richer, plumper tone. There was more resonance to the acoustic bass in Antonio Forcione & Sabine Sciubba's 'When We Two Parted' [*Meet Me In London*, Naim Label; 192kHz/24-bit], but also a softening of the edges to the vocals.

The jazz of Forcione sounded pristine and utterly refined, yet this doesn't mean the M6x's performance puts your hard rock/heavy metal library off-limits. On the contrary, it charged its way through up-tempo guitar-driven music with glee. Judas Priest's 'Rapid Fire' [*British Steel*, Sony Music; Tidal Master] lived up to its name, as pounding drums battled with fast-fret guitar and Rob Halford's trademark operatic vocals. The M6x conveyed it with all the snarling fury the band surely intended.

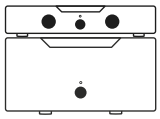
ABOVE: The M6x's circuit boards are assembled at Canor's high-tech manufacturing facility in Slovakia and feature dual ES9038 DACs feeding a balanced analogue output. Embedded into the M6x's alloy fascia are blue LEDs indicating the selected input, incoming LPCM and DSD sample rate, digital filter, MQA decode and fixed or variable output

VERDICT

Move along if you're looking for a networked DAC for your system, but demand an audition if you can handle a little cable clutter. Musical Fidelity's M6x, thanks to its winning mix of foolproof usability, wide file compatibility and performance that favours any musical genre, is a DAC with serious X appeal.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.10Vrms / 0.4-0.7ohm
A-wtd S/N ratio	115.5dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00020% / 0.00029%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.00027% / 0.00035%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.3dB/–1.8dB/–4.3dB
Digital jitter (48kHz / 96kHz)	10psec / 9psec
Resolution (re. –100dBFs / –110dBFs)	±0.1dB / ±0.3dB
Power consumption	9W (1W standby)
Dimensions (WHD) / **Weight**	440x100x390mm / 6.9kg



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AUDIO FILE

CD player/USB DAC
Made by: The Rotel Co. Ltd, Tokyo, Japan
Supplied by: Rotel Europe, Worthing, UK
Telephone: 01903 221 710
Web: www.rotel.com
Price: £1999

Rotel DT-6000

The trend for 'anniversary' products continues with Rotel's Diamond Series. Released to mark 60 years since the brand's launch, it comprises the £3999 RA-6000 integrated amp, and £1999 DT-6000 CD player we have here. Not the hefty additions to the Michi range you might expect, these are instead classic Rotel designs, albeit with trickle-down technology from their flagship stablemates.

An industrial aesthetic, in silver or black, marries a familiar-looking facade with elements that hark back to Rotel's 10 Series from 2001. Grabbing attention are the DT-6000's shiny 'heatsinks' on each side of the aluminium front panel, and embossed Diamond Series inscription on the front of the top plate. Meanwhile, a no-nonsense two-line display and blue lighting around the power control are immediately recognisable as 'Rotel'.

'A crisp, detailed sound that placed the acoustic guitar front and centre'

A row of buttons cater for disc playback control (including repeat and random), and to switch from CD to S/PDIF and USB-B inputs; the 'DT' prefix referring to the unit's status as a 'DAC Transport'. This flexibility is a shrewd move, especially as the DT-6000's eight-channel ESS DAC offers a better performance than the TI part used in the RA-6000. Meanwhile, file support extends to 384kHz/32-bit and DSD256.

Rotel's transport has a level of engineering commensurate with its price and 'Diamond Series' elevation, including an essentially silent, spring-floating CD mech and quality parts throughout. Liberal use of high-efficiency, low ESR (Equivalent Series Resistance) slit-foil reservoir capacitors – a Rotel staple – help optimise PSU performance, and 'high-grade' resistors and metallised polyester capacitors are a feature of the audio circuitry. Analogue outputs are on both balanced XLR and unbalanced RCAs.

DIAMOND PLEASER

This DT-6000 has a direct, revealing sound signature, distinct from that of the TI DAC-based RA-6000 integrated amp. So while Rotel's two Diamond Series products dovetail well together, they're both very much standalone separates.

A sometimes unheralded attraction of the CD format is that it offers the focused listening experience of physical media without having to faff around with vulnerable vinyl. The DT-6000 certainly caters to those with can't-wait sensibilities by quickly loading discs and revealing a lot of information – including CD Text where available – on its compact display.

Carla Bruni's *Little French Songs* [Universal Music France, 373 173-2] is an elegant collection of original *chansons* that doesn't push any boundaries, mainly consisting of the Italian/French singer accompanying herself on acoustic guitar. The portrayal of Bruni's voice via the Rotel disc player/DAC was direct and engrossing, allowing full enjoyment of all the verbal quirks and tricks the singer uses to add a bit of humour.

ABOVE: The DT-6000 is a 'traditional' CD player with optical, coaxial and USB digital inputs. Inside there's an ES9028PRO DAC feeding a balanced, op-amp based analogue output while, on the elegant fascia, light touch controls serve CD track selection and menu navigation

Streaming music via an Auralic Aries LE network transport into the DT-6000's USB input proved equally enticing. The smooth voice of Susan Tedeschi and the acoustic guitars that kick-off Tedeschi Trucks Band's *I Am The Moon: I. Crescent* [Fantasy FAN01572; 192kHz/24-bit FLAC] were there to savour, along with a crisp and detailed presentation which placed the guitar front and centre. The intricate, softly played percussion around the halfway point of 'Pasaquan' was expressed that little bit clearer on Rotel's player than when fed straight to its sibling Diamond Series amp.

The DT-6000, therefore, has a revealing character that might just be what your partnering amplifier calls for – it certainly added an extra grasp of detail and separation to the generous power and authority coming from the RA-6000.

Tartini: Secondo Natura features the composer's baroque pieces recorded directly in DXD [2L-112-PABD; DSD128], and the DT-6000 sounded intricate and nimble in its handling of the harpsichord and violin. Meanwhile on Kristin Fossheim and Steinar Granmo Nilsen's *The Horn In Romanticism* [2L-162-SABD; DSD128], it was the sheer depth of the stereo soundstage, and the full character of the brass, that stood out. The result was a truly nuanced, three-dimensional performance.

VERDICT

Some anniversary products may offer little else but a new colour or a lavish finish, but this is not the case with the Diamond Series DT-6000. Combining a fine disc-spinner with an excellent DAC, Rotel's gorgeous player aims high and succeeds.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.2Vrms / 1.7-1.9kohm (XLR)
A-wtd S/N ratio (USB / CD)	110.0dB / 111.9dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00013% / 0.0050%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.0010% / 0.0052%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.4dB/–1.7dB/–4.5dB
Digital jitter (USB / CD)	250psec / 119psec
Resolution @ –100dBFs (USB / CD)	±0.1dB / ±0.1dB
Power consumption	8W (1W standby)
Dimensions (WHD) / **Weight**	431x104x320mm / 8.1kg

hi-fi news OUTSTANDING PRODUCT

Headphone preamp with outboard PSU
Made by: EarMen, Chicago, IL, USA
Supplied by: SCV Electronics Ltd, Herts
Telephone: 03301 222500
Web: https://earmen.com; www.scvdistribution.co.uk
Price: £1349

AUDIO FILE

EarMen CH-Amp

Although UK-based readers might not recognise the EarMen moniker, it's not a newcomer to the world of hi-fi. The headphone amp reviewed here does, however, represent something of a departure for a brand that started off focusing on affordable and often portable DACs – think smallish USB units well suited to connecting a mobile device.

EarMen's new CH-Amp can be used with its Staccato streamer (£999) and Tradutto DAC (£799) for a desktop 'stack' that will entice the discerning headphone enthusiast. All are built into matching, slab-like, 30mm-high black alloy cases, while the amp's (larger) PSU-3 power supply offers the necessary 12V DC connections to juice the trio, and the CH-Amp's supplied remote will also operate the Tradutto. You could, of course, use the headphone amp with third-party hardware.

> 'The music had a live feel to it, befitting the blues/country genre'

A petite OLED display on its front panel offers information in a small typeface, next to three recessed buttons which are somewhat small, therefore making input and the two-tier gain selection a bit fiddly. Otherwise it's a simple pleasure to use, with line-level inputs and headphone outputs complemented by preamp-outs to connect to a power amp or active speakers.

The pre-outs and line-ins are offered on both RCA and balanced 4.4mm Pentaconn sockets while headphones are hooked-up via 6.35mm or 4.4mm ports, catering for the latest models from the likes of Audio-Technica and Sennheiser. The CH-Amp is rated at 1.5W/32ohm and, in balanced mode, 3.8W/32ohm. The core circuit design – based around TI's SoundPlus OPA1642 op-amps – is shared between the line/preamp and headphone outputs, the latter having its own output buffer that drops the 96ohm line-out source impedance down to an idealised sub-1ohm level.

PUT IT IN NEUTRAL

Final's Sonorous VI is a potentially challenging headphone and its 'high-res' demeanour can quickly head off into overbright territory. Yet the CH-Amp showed itself to be neutral in its disposition, keeping listening pleasant and ear-friendly. The low source impedance of the 6.35mm headphone output was a boon here, as the Sonorous VI's tonal balance can be less predictable when used with amps that have a moderate-to-high impedance.

On the remarkable Ry Cooder/Taj Mahal set *Get On Board* [Nonesuch Records], tracks like 'Hooray, Hooray' had a realistically live feel to them, befitting the blues/country genre. And with Mahal on harmonica to the left, and Ry's son Joachim handling percussion off to the back of the stage on 'Midnight Special', there was an excellent sense of separation and clarity.

Switching to Beyerdynamic's DT 1990 Pro via the balanced 4.4mm connection, the CH-Amp automatically reduced its output volume to zero. This limits the danger of damaging a headphone (or your ears) when changing between low- and high-impedance 'phones or earbuds of differing sensitivity. Adjustment made, it then proved just as adept portraying the dynamic set pieces of Wagner's 'Siegfried' at the Royal Swedish Opera [Sterling CDA1847] as it was softly lifting out the smallest detail.

ABOVE: The CH-Amp includes a bijou but informative and surprisingly 'readable' OLED display plus 6.35mm and 4.4mm (balanced) headphone sockets. The PSU-3 [bottom] has a dedicated feed for the CH-Amp and support for three other 12V DC-powered components

The CH-Amp is not one for embellishment, though – with 'flat' studio headphones like Beyerdynamic's DT 1990 Pro its neutral approach doesn't always deliver the thrills you might desire, particularly from rock and pop. Otherwise, its even-handedness is a positive attribute for audiophile 'phones, such as Focal's Elear or Denon's AH-D7200. And it was with the latter that the massive organ tones during Hans Zimmer's 'Medley: Interstellar' [*Live In Prague*, Eagle Vision ERBRD5338] remained taut, controlled and perfectly balanced within the mix.

VERDICT

EarMen's CH-Amp is a miniature powerhouse, bringing a very big performance to limited deskspaces. And that full 'stack' might tempt head-fi enthusiasts too.

HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD)	7.15V (pre) / 7.15V (headphone)
Power output (<1% THD, 600/32/8ohm)	85mW / 1280mW / 1880mW
Output Impedance (20Hz-20kHz)	550-690mohm (96ohm, pre)
A-wtd S/N ratio (re. 0dBV/32ohm)	100.2dB / 100.5dB
Distortion (20Hz-20kHz, 0dBV)	0.00016-0.0020% (preamp)
Distortion (20Hz-20kHz, 10mW/32ohm)	0.00021-0.0016% (headphone)
Freq. resp. (20Hz-20kHz/100kHz)	–0.01 to +0.01dB/+0.04dB
Power consumption	5W (1W standby)
Dimensions (WHD) / **Weight** (total)	150x30(60)x150mm / 2.1kg

AUDIO FILE

Headphone preamplifier
Made by: HEM Ltd, Poland
Supplied by: Signature Audio Systems
Telephone: 07738 007776
Web: www.ferrum.audio; www.signatureaudiosystems.co.uk
Price: £1795

Ferrum OOR

When it claimed a 2021-22 EISA award in the Hi-Fi Accessory category, Ferrum's Hypsos power supply [*HFN* Mar '21] was described by the judges as 'a potent upgrade for a wide range of devices, not least USB DAC/headphone amplifiers'. So what you see here is a logical follow-up.

The OOR, a £1795 all-analogue headphone amplifier, measures just 22cm wide and 5cm tall, making it a style and size match for the Hypsos, and indeed it can be used with the offboard power supply if you wish. Initial impressions of the unit are of its simplicity: it's basically designed to be used with a single source – or at least one apiece via unbalanced RCAs and balanced XLRs – or used in a loop with a preamp or amplifier's 'tape' connections, with matching RCA/XLR outputs provided on the rear panel.

'The OOR amp really made the most of the intertwining rhythms'

By default these outputs are set to 'variable', along with the headphone sockets on the front panel, which are available balanced (four-pin XLR) and single-ended (6.35mm socket). However, should you wish to have a line-level output back into an amplifier, the OOR can be switched into what Ferrum calls its 'Bypass Function', which takes the volume control out of the equation for all outputs, including the headphone sockets – it's not surprising the manual cautions about the use of this facility.

Other controls are simple. Aside from the volume adjustment, there's a switch to select between RCA and XLR input, plus a gain control marked '–dB/0/+dB' whose effect varies according to the headphones in use. A final control on the rear panel allows the Ferrum logo on the fascia to be dimmed.

Within the OOR's black/orange casework, which is smart but a little functional in an 'exposed screw-heads' kind of way, the signal path is balanced throughout (the RCA inputs are converted to balanced working), with in-house power amplification design. The output stages are kept permanently powered to, says Ferrum, keeping them 'in a state where they can instantly unleash all their power, crucial for high dynamics, superlative control and authority in sound'. That's serious fighting talk!

POWER SHOT

While the OOR is short of the 'fiddle-ability' of some headphone amps at this price, it compensates for its simplicity with a sound of unusual openness and directness. Whichever headphones you plug into it, balanced or unbalanced, appear to have been given a shot of extra power – not just in level, although the OOR will drive them hard and extremely cleanly, but in terms of dynamic freedom.

ABOVE: Matching the compact casework of the Hypsos PSU and ERCO [p67], the OOR's minimalist panel hosts balanced/SE headphone outs, balanced/RCA input and gain selection plus volume. A separate PSU input is provided for users who wish to upgrade from the supplied 'wall wart' to the programmable Hypsos DC supply

Playing Rosanne Philippens' sparkling recording of Haydn and Stravinsky with The Vondel Strings [Channel Classics CCS 43921; DXD], what's obvious is the clarity on offer, allied to a generous bass for the 'bigger fiddles' and the fresh sound of the soloist's violin. The music is presented as a whole, with no odd instrumental tonality to upset the ear, yet open for inspection.

The OOR lacks a little warmth and lushness compared to some rivals but differences are such that the choice of headphone is more likely to be a deciding factor. For example, used with the rich-sounding B&W P9 Signature [*HFN* Mar '17], the OOR cut through some of that warmth to deliver a fine sense of detail, revealing singer Nao's distinctive voice on *Then Life Was Beautiful* [Little Tokyo Recordings/RCA/Sony Music 19439900512] while also evoking the substance of the arrangements.

There's real driving ability here, and coupled with great insight it superbly brings out the ambience of Steely Dan's live *Northeast Corridor* [Universal UICY-16015]. Rather less sparky – chilly in fact – is *For Now I Am Winter* by Ólafur Arnalds [Mercury Classics 00289 481 0150], which combines icy strings and driving beats. Ferrum's amp really made the most of the intertwining rhythms, the sheen of the string section and the deep bass to create a sound with bags of atmosphere and no shortage of interest.

VERDICT

If you want a headphone amp that plays it brilliantly simple, the OOR is bound to please with its direct, communicative delivery via a wide variety of partnering 'phones.

HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD)	24V (XLR, pre)/ 12V (SE, headph)
Power output (<1% THD, 600/32/8ohm)	242mW / 2600mW / 1090mW
Output Impedance (20Hz-20kHz)	663-667mohm (22ohm, preamp)
A-wtd S/N ratio (re. 0dBV/32ohm)	98.5dB / 98.5dB
Distortion (20Hz-20kHz, 0dBV)	0.00014–0.00085% (preamp)
Distortion (20Hz-20kHz, 10mW/32ohm)	0.00025–0.105% (headphone)
Freq. resp. (20Hz-20kHz/100kHz)	+0.02 to –0.02dB/+1.0dB
Power consumption	4W (1W standby)
Dimensions (WHD) / **Weight**	217x50x206mm / 1.8kg

hi-fi news OUTSTANDING PRODUCT

Integrated tube amplifier. Rated at 50W/8 & 4ohm
Made by: Audio Research Corp, Minnesota, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.audioresearch.com; www.absolutesounds.com
Price: £5198

AUDIO FILE

Audio Research I/50

Few companies have been as resistant to styling changes as the Audio Research Corp. Even after a decade-plus under the ownership of fashion-conscious Italians, ARC products still suggest they belong in studios or government labs. So when news arrived it was releasing a swoopy integrated amplifier available in six colourways, it was a shock.

The 50W-rated I/50 marks the return of an entry-level model for ARC. You can get it in all-black or all-silver for a semblance of the 'old' ARC, or opt for a white, red, yellow or blue finish for the amplifier's top plate. However, even while the I/50 targets new buyers, it does so with enough care to not alienate those already predisposed toward the brand, and who have long awaited the return of something accessible.

'The stage extended beyond the speakers' edges, wall to wall'

Along with the trendy attire comes full remote control and minimal setup hassle. Aside from fitting the valves – 6922 triodes and a push-pull pair of 6550WEs – this is fear-free. There's not even the chance of biasing the tubes, the manual stating it's a job for a technician. This also precludes hobbyists from replacing the 6550s with other octal valves; if you want an amp that can handle all flavours of KT-tubes, better look elsewhere.

At the back are multi-way binding posts driven from 4ohm and 8ohm taps, plus three line-level RCA inputs and one line-level input on balanced XLRs. Two blanking plates are there to house forthcoming phono and DAC modules.

Where the I/50 departs most from its predecessors is the lack of a fascia, *per se*. Every function can be accessed from the slick, all-metal remote, so controls are limited to source select rotary, power, and volume/mute. Sat between are two LexieTubes providing the displays for all the amp's functions.

MAGIC ACT

The I/50 isn't some beast of a 50-watter, and couldn't drive hungry, sub-£1000 Magnepan LRS models to satisfactory levels. On the other hand, it dispatched a pair of £40k Wilson Audio Sasha DAWs [*HFN* Mar '19] with ease – so don't think about buying this amplifier without hearing it through your own choice of loudspeakers.

So enchanting, so sublime, so irresistible was the I/50, we actually spent a 15-hour session with it, unable to stop spinning disc after disc through a Marantz CD12/DA12 KI. The Sasha DAW floorstanders enjoyed the magical disappearing trick to which all speakers should aspire. The soundstage extended beyond the speakers' edges, wall to wall, while the front-to-back depth was astonishing. What's more, this three-dimensionality was maintained far off-axis.

Throughout Lou Rawls' *At Last* set [Blue Note CDP 7 91937 2], David Newman's saxophone solos possessed realistic punch and body, and, oh, those voices! Every gravelly nuance of Rawls' peerless *basso profundo* exposed the I/50's openness and transparency.

As limited as this valve amplifier might be in terms of absolute power, mated to the right speakers it punches far above its weight. Out came Keb' Mo's *Peace...Back By Popular Demand* [Okeh/Epic EK92687], along with pairs of Falcon Acoustics LS3/5As [*HFN* Dec '18], Tannoy Autograph Minis, and JBL 4312Ms. Listening to 'The Times They Are A-Changin'', the piano revealed that the I/50 can convey delicacy like a 300B-equipped 5W SET amp, while the bass and percussion on 'People Got To Be Free' had mass and extension even through small monitors – and any absence of the lowest registers from these wee systems failed to diminish our sense of satisfaction.

ABOVE: The I/50's decorative surround is available in six colours, the black cage protecting one pair of 6550 tubes per channel leaving the LexieTubes on view and volume/selector rotaries accessible via its plinth. Around the back, 8 and 4ohm speaker taps are offered alongside bays for forthcoming phono and DAC modules

VERDICT

Not just another fine, mid-priced, 6550-powered all-tube integrated – Audio Research's I/50 is so categorically musical, competent and complete that it might just herald the start of a new age.

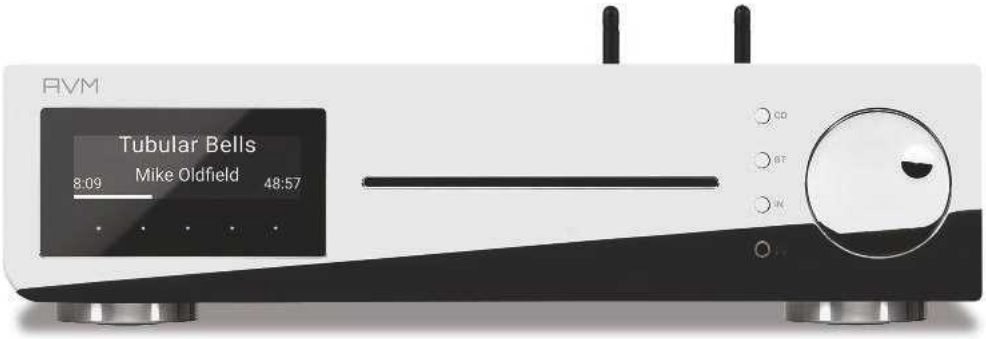
HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	58W / 55W
Dynamic power (2% THD, 8/4/2/1ohm)	68W / 63W / 66W / 66W
Output impedance (20Hz–20kHz)	0.85–6.0ohm (8.6ohm/38kHz)
Freq. response (20Hz–20kHz/100kHz)	–0.5dB to –2.9dB / –20.1dB
Input sensitivity (for 0dBW/50W)	300mV / 2150mV
A-wtd S/N ratio (re. 0dBW/50W)	92.8dB / 109.8dB
Distortion (20Hz-20kHz, 10W)	0.39–3.2%
Power consumption (Idle/Rated o/p)	160W / 290W
Dimensions (WHD) / **Weight**	420x225x350mm / 18.1kg

AUDIO FILE

Streaming DAC/CD player/amplifier. Rated at 140W/8ohm
Made by: AVM Audio Video Manufaktur GmbH, Germany
Supplied by: The Professional Monitor Company Ltd
Telephone: 01767 686300
Web: www.avm-audio.com; www.pmc-speakers.com
Price: £5950

hi-fi news HIGHLY COMMENDED



AVM CS 2.3

Replacing the Inspiration CS 2.2 model, AVM's Inspiration CS 2.3 all-in-one, selling for £5950 in black or silver, or extra for its chrome 'Cellini' finish, is based around the latest streaming platform from the high-end German marque. Designated the 'X-Stream Engine', it's already in use in the flagship Ovation CS 8.3 system, as well as various other networked products in the brand's lineup.

With the upgrade comes a new control app, which you'll likely end up using since AVM's IR/RF remote, complete with docking recharge station, is a pricey optional extra. And it's this new 'engine' and app that's at the heart of turning the CS 2.2 into the 2.3 model tested here.

> 'It treated us to just the right balance of intimacy and passion'

As supplied, the system handles network audio, Bluetooth and AirPlay 2, and can stream from HighResAudio, Qobuz, Spotify, Tidal and Internet radio. We're promised this provision might be expanded, as the unit can be upgraded via USB or its network connection. Its comprehensive specification includes a slot-loading CD player based on a dedicated TEAC drive and, for a true 'just add speakers' system, there's a 2x140W-rated Class D power plant capable of driving a wide range of speakers.

The CS 2.3 also has a healthy set of inputs – not always a given with systems of this kind – including HDMI for TV sound and MM/MC phono, the latter with adjustable loading via plug-in adapters. There are also two line inputs, a front-panel headphone jack, and both fixed and variable preamp outputs.

On the digital side, the X-Stream Engine brings file capability up to DSD128, and in addition to the Ethernet/Wi-Fi network audio connection there's a USB-A port for audio playback from storage devices. 'Conventional' digital inputs and outputs are provided on optical and coaxial sockets.

Buried in the CS 2.3's menu are configuration options including input sensitivity and renaming; the ability to skip unused inputs; start-up and max volume settings; and tone control and parametric loudness. If all that gives the impression of a device both skilfully designed and thoroughly considered, that's exactly what the Inspiration CS 2.3 is, right down to AVM's superb standard of finish.

BIG-BONED STREAMER

Whether with CD, streaming services, music from local stores or indeed vinyl, this system's sound is smooth and precise. There are rivals able to extract more detail from what's being played, but there's no arguing with the confidence and sheer musical impact the CS 2.3 can muster, as your attention is directed to the performance, not the minutiae of the hi-fi experience.

Via the sparse arrangements of The Specials' *Protest Songs 1924-2012* set [Island Records 3840699] the CS 2.3 delivered a big-boned presentation, notably with the cover of Talking Heads' 'Listening Wind', where the instrumentation was rendered as impressively as the close harmonies and the hushed vocals of Hannah Hu. And with Lynval Golding's take on 'Get Up, Stand Up', it treated us to the right balance of intimacy and passion.

A fine handling of timbres and textures was on show with Bernardi Fumagalli Gattone Trio's update of Bernstein's *West Side Story* [Forward Music FMICA990012101; DSD128]. Here, the CS 2.3 conveyed the live, straight-to-DSD recording with an immediacy to the sound, enhanced by the speed and control of the rhythms. It might be warm and refined, rather than upfront, but it boasts a deftness of touch and tangible dynamic ability.

So: insight without overt 'hi-fi-ness' is what this system does so well. Yes, there's plenty of information on offer, and the sound is always precise as well as sumptuous, but what this does is contribute to the music, rather than distracting from it. It's not all about an even-handed delivery of super-clean recordings, either: on the *Total (From Joy Division To New Order)* compilation [Rhino 5052498647958], it slammed out the dense lo-fi mixes at room-shaking levels, and generated plenty of excitement in the process.

ABOVE: Seen in its premium 'Cellini' (chrome) livery, the CS 2.3 has CD, BT and input selection buttons, plus a multi-function rotary. Configuration is possible via the display or, better, via AVM's RC X app. The slot-loading TEAC CD drive is joined inside by an ESS9038 DAC, X-Stream processor, phono stage, preamp, and screened Pascal Class D amplifier modules

VERDICT

Generous and beautifully controlled music-making, superb build quality, and a comprehensive feature set – this luxurious little system has the wherewithal to win over buyers, even in the face of more keenly-priced competition.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	145W / 190W
Dynamic power (<1% THD, 8/4/2/1ohm)	248W / 524W / 475W / 250W
Output imp. (20Hz–20kHz, Pre/Amp)	46ohm / 0.04-0.28ohm
Freq. resp. (20Hz–20kHz/100kHz)	–0.07 to –0.01dB/–5.9dB
Digital jitter (CD / S/PDIF)	118psec / 11psec
A-wtd S/N ratio (DAC/Amp)	110.2dB (0dBFs) / 81.8dB (0dBW)
Distortion (DAC, 0dBFs/Amp, 10W)	0.00012-0.0006% / 0.002-0.09%
Power consumption (Idle/Rated o/p)	14W / 326W (1W standby)
Dimensions (WHD) / **Weight**	340x100x320mm / 7.1kg

If Wishes Were Horses

"I wanted to bring Mythical Creature goodness to a much bigger audience. The Mythical Horses are proof that I got my wish."

William E. Low
Founder

Black Beauty: £729/1m pair RCAs, £939/1m pair XLRs
Pegasus: £1,439/1m pair RCAs, £1,779/1m pair XLRs

audioquest

AUDIO FILE

Integrated tube amplifier. Rated at 55W/8ohm & 4ohm
Made by: Balanced Audio Technology Inc., Wilmington DE, USA
Supplied by: Karma-AV Ltd, York
Telephone: 01423 358846
Web: www.balanced.com; www.karma-av.co.uk
Price: £9995

BAT VK-80i

There can be some extra-curricular activity to using a valve amp, but Balanced Audio Technology's £9995 VK-80i integrated intends to be 'plug-and-play', and provide a user experience more in line with the American company's own solid-state models than some hot bottle contemporaries. It also sets out to deliver the 'sound' of a pure triode amp without the low power breathlessness – in place of classic 300B triodes, the quartet here are 'signature' 6C33C-B tubes set in a push-pull configuration. BAT rates the VK-80i at 55W/8ohm.

'Control and nuance helped disentangle music from mayhem'

The amp's main chassis is nicely slim, which helps make the unit look easier to accommodate than it actually is. With output triodes in place, plus the four 6SN7s used in the line/preamp stage, the height approaches 20cm, while two circular transformer modules extend the depth to 41cm. There's no protective cage for the hot-running tubes either (idle power consumption is 470W), so the VK-80i is very much a case of look, but don't touch.

The simplicity of the preamp section is reflected by the sparse front panel, and all-metal remote handset that's similarly light on functionality. Valve-fitting and source setup is straightforward too – for the latter, choose from the single balanced XLR input, or trio of unbalanced RCAs. One wrinkle, though, is the amp's configuration of speaker binding posts – there are dual sets, with labelling denoting which should be employed with notionally 'High', 'Med', and 'Low' loudspeaker impedances.

That doesn't exactly scream 'plug-and-play', but two other features boost the VK-80i's accommodating nature. The first is the amp's 'intelligent auto-bias circuit'; the second is the 'fuseless design', where thermal and electronic protection circuits replace all but the main breaker fuse demanded by regulation. This, says BAT, removes the chance of 'over-stressing' the unit.

PEPPER SPRAY

It might take you a while to fully appreciate the VK-80i's talents, because this isn't an amplifier with an obvious, deliberate tone or voicing. There's no artificial warmth or extravagant bass. What it does, instead, is pepper you with details, often so subtly that at first you don't realise. It's articulate and revealing, super-smooth when needed, grippy and controlled when push comes to shove.

'A Boat Lies Waiting' [*Rattle That Lock*, Columbia; 96kHz/24-bit] was delivered with extreme delicacy. The piano sounded resonant, while background effects enjoyed a gossamer touch, and David Gilmour's vocal oozed from the speakers. Musical? Naturalistic? Intimate? Take your pick.

Where there's space in the soundstage, and real fidelity, BAT's amp is in its element. Tony Bennett and Lady Gaga's 'Cheek To Cheek' duet [Streamline Records/Columbia; 96kHz/24-bit] emphasised their vocal talents – Bennett's tenor was rich and slightly heavy, Lady Gaga's higher registers enjoyed a smooth edge, and both sat forward from the muted piano accompaniment.

It was supremely assured and subtle, so is the VK-80i a no-go if you like to rock out? Not necessarily. Budgie's rapid-paced 'Breadfan' [*Never Turn Your Back On A Friend*, Noteworthy Productions NP4] was presented with jagged guitar and a brilliant sense of timing, while 'Odna' [*Slovo*, Napalm Records NPR 371], from Russian folk metal band Arkona, benefited from the amp's control and nuance, helping to disentangle music from mayhem. There isn't stomp and aggression here – rather than race out of the traps like a greyhound, the VK-80i gallops like a thoroughbred.

ABOVE: Cut alloy fascia and chassis is available in black or silver, the faceplate hosting a large volume rotary and discreet buttons for input selection and mute. One balanced (XLR) and three single-ended (RCA) inputs are joined at the rear by rows of 4mm cable terminals configured for 'High', 'Med' and 'Low' speaker impedances

VERDICT

A remarkably insightful listen, with an enviable talent for detail and soundstaging. Tube devotees will cherish the VK-80i's way with music, and will likely find it more than juicy enough for their existing set-up.

HI-FI NEWS SPECIFICATIONS

Power output (<3% THD, 8/4/2ohm)	53W / 51W / 46W
Dynamic power (<3% THD, 8/4/2/1ohm)	97W / 102W / 105W / 15W
Output imp. (20Hz–20kHz/100kHz)	1.99–2.06ohm / 2.83ohm
Freq. response (20Hz–20kHz/100kHz)	+0.39dB to –0.14dB / –2.8dB
Input sensitivity (for 0dBW/55W)	204mV / 1513mV
A-wtd S/N ratio (re. 0dBW/55W)	78.5dB / 95.9dB
Distortion (20Hz-20kHz, 10W)	9.5%–1.0%
Power consumption (Idle/Rated o/p)	470W / 680W (1W standby)
Dimensions (WHD) / **Weight**	431x203x406mm / 20.4kg

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AURALIC PRESS AWARDS

AUDIO FILE

Streaming DAC/amplifier. Rated at 150W/8ohm
Made by: Cambridge Audio Ltd, PRC
Supplied by: Audio Partnership PLC, London
Telephone: 0203 514 1521
Web: www.cambridgeaudio.com
Price: £2249

Cambridge Audio Evo 150

A decade since the network-attached systems market was shaken into being, we at last have a duo of 'just add speakers' systems from Cambridge Audio, combining network audio playback with preamp functionality and onboard amplification courtesy of Hypex's Ncore Class D modules. Both units – the £1799 Evo 75 and the £2249 Evo 150 featured here – share the same slimline casework, just under 32cm wide, and a full colour display carrying a host of information, including album artwork.

> 'Even unleashing an orchestra on this system didn't faze it'

You get a choice of finishes, too; packed with the amp are two sets of side panels (walnut veneer and Richlite black), which are held in place by magnets, and can thus be swapped. Clearly these 'Evos' are designed to be more than just another Cambridge Audio product.

The main distinction between the two amps is their power output – the Evo 75 is rated at 75W/8ohm and the Evo 150 is double that – but the pricier unit also offers greater input/output flexibility. USB-B, balanced XLR in, MM phono and a second optical connection are added to an already solid roster including HDMI ARC and USB-A for storage playback. The Evo 150 also gains a second set of speaker terminals, complete with A/B switching, plus 12V trigger and RS-232C control options.

Common to both is extraordinary flexibility when it comes to music playback. In addition to streaming from network storage and accessing services including Qobuz, Spotify, Tidal and Internet radio, the Evo 150 also supports AirPlay 2, Bluetooth in/out and Chromecast built-in. Finally, MQA decoding is included and the Evo range is Roon-ready. ESS Sabre DACs feature in both systems (both 384kHz/32-bit) – though the Evo 150's ES9018K2M is a step up from the ES9016K2M used in the Evo 75.

CHAMPION AMP

The Evo 150 acquitted itself very well via its balanced XLR line input and MM phono, sounding every bit the powerful, mature and detailed amplifier. Firing up the network section, however, let this unit show what makes it a very strong contender in the competitive streaming audio arena. Playing the *Shaping Chopin* set by pianist Anna Fedorova [Channel Classics CCS43621] revealed not only the expression and delicacy of touch of the performer, but also the acoustic in which her playing was captured. The dancing rhythms were as crisp as the piano was well-weighted and perfectly scaled.

Listening was never a chore. The insight offered into the excellent sound of Augustus's *Ragtime World* [Octave Records 0006; DSD64] brought the well-crafted recording to life. Furthermore, the outstanding realism of Zuill Bailey's set of Bach solo cello suites for the same label [0008] showed this slimline system has real star quality. Driving loudspeakers well beyond its price grade, the Evo 150 showed not only excellent grip and control, but a freedom and spaciousness for which no apologies need be made. The three-dimensionality and near-tangibility of Zuill Bailey's centuries-old instrument was simply delicious.

With those Hypex Ncore modules in harness, the Evo 150 is never short of clout and drive, and will play a good deal louder than you might think without showing signs of stress. The punch of percussion and drums in Art Blakey's *Holiday For Skins* [Blue Note UCCQ-9526; 96kHz/24-bit] was thrilling, and even unleashing an orchestra on this compact system didn't faze it – the 2016 Vienna Philharmonic reading of Mussorgsky's *Pictures At An Exhibition* [DG 479 6297] was resplendent in all its weight and scale, while winding up the volume just brought even more drama.

ABOVE: The understated Evo 150 plays it simple with slender buttons beside a display handling basic functions, while the volume control's concentric silver ring also allows input selection. The slick and intuitive StreamMagic control app, for Apple iOS, has been designed to work with the Evo 150's bespoke streaming platform

VERDICT

Stylish and impeccably engineered, Cambridge Audio's streaming amp performs like a bigger system bursting out of a diminutive frame. It'll do everything you want when it comes to network audio, is flexible regards system integration, and is always a delight to use.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	149W / 275W
Dynamic power (<1% THD, 8/4/2/1ohm)	150W / 290W / 275W / 193W
Output imp. (20Hz–20kHz, Pre/Amp)	<1ohm / 0.031-0.032ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.6dB/–6.5dB
Digital jitter (USB / S/PDIF)	25psec / 25psec
A-wtd S/N ratio (DAC/Amp)	106.5dB (0dBFs) / 81.8dB (0dBW)
Distortion (DAC, 0dBFs/Amp, 0dBW)	0.0015-0.025%/0.0005-0.018%
Power consumption (Idle/Rated o/p)	24W / 340W (1W standby)
Dimensions (WHD) / **Weight**	317x89x352mm / 5.3kg

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AUDIO FILE

Desktop/headphone amplifier. Rated at 10W/8ohm
Made by: Chord Electronics Ltd, Kent
Supplied by: Chord Electronics Ltd
Telephone: 01622 721444
Web: www.chordelectronics.co.uk
Price: £1300

Chord Anni

Selling for £1300, the Anni isn't Chord Electronics' first compact amplifier – that honour goes to the £2900 TToby [*HFN* Feb '17], designed as a partner for the Hugo TT 2 DAC/pre/headphone amp [*HFN* Dec '15]. But the Anni is smaller, at just 16cm wide and 4.25cm tall, much lighter at 625g, and conceptually different.

In practice, its size is governed by its suggested partnership with the compact Qutest DAC [*HFN* Nov '18] and the Huei phono stage. It's described as a 'Desktop Integrated Amplifier', not just a power amp, and features 6.35mm and 3.5mm headphone outputs on the front panel, along with 4mm speaker sockets to the rear. Either or both headphone sockets can be used, but there's none of the fancy balanced connections found on many another DAC/headphone amp.

Those familiar with Chord's way of thinking will find nothing about the Anni to scare the horses. Two of the brand's internally-lit spherical controls handle power on/off and a gain boost, but only to the speaker outputs, if required. That's almost the only switching the user need worry about, beyond selecting between the two sets of line inputs, which is just a matter of pushing the volume control. There's no remote handset, as this is a desktop product, and therefore intended to be used within easy reach.

> 'It's a lot of amplifier crammed into small, high-quality housing'

The technical information Chord supplies about the Anni is almost as simple as its operation. We're told the power output is 10W/8ohm and the amplification within 'benefits from the company's proprietary ULTIMA circuit topology'. Our independent tests clocked the Anni at 13W/8ohm under dynamic conditions. Either way, there's some sense of this being a lot of amplifier crammed into a small, high-quality housing: both the front and top panels are 'punched' for ventilation, and the Anni can run a little warm if you choose to work it hard.

DESKTOP DIVA

In the absence of a Qutest, the Anni was used with an iFi Audio NEO iDSD DAC/headphone amp [*HFN* Mar '21] fed from a Mac mini computer via USB and with its analogue output set to fixed-level. The Anni's outputs were run into Neat Acoustics' diminutive Iota loudspeakers, and headphones included Bowers & Wilkins' P9 Signature [*HFN* Mar '17] and the original – and highly revealing – Focal Spirit Pro [*HFN* Dec '15].

The amp was also employed in a 'full-size' system powering larger Neat Iota Xplorer speakers [*HFN* Jul '18]. Now, while it gave a more than reasonable account of itself at levels best described as 'modest to sensible' with an open top-end, smooth midband and punchy, well-extended bass, it became clear that desktop sound with smaller enclosures was the Anni's true forte, along with its ability to convincingly drive a wide range of headphones.

ABOVE: Svelte black alloy case includes two of Chord's iconic illuminated 'ball' switches for gain (speaker output only) and on/standby. Volume control also switches between the two (RCA) line inputs, these joined by inset 4mm banana plug (speaker) sockets and an earth/grounding post. A 15V DC PSU input also feeds a 12V DC output to power Chord's partnering Huei phono preamp

The clean, smooth but dynamic sound it developed through loudspeakers, complete with generous yet tight bass, was echoed in its headphone performance. Whether with large-scale orchestral music, such as the LSO/Marin Alsop recording of Bernstein's *Candide* [LSO Live LSO0834; DSD128], or the rough-edged Neil Young/Crazy Horse *Barn* set [Reprise download; 192kHz/24-bit], the Anni did not lose its grip. There was a fine sense of insight and detail, but, above all, the impetus of the music-making was delivered intact, which is really what it's all about.

Overall, the sound has a welcome sweetness, along with that low-bass warmth, and while this was true even through the Focal headphones it doesn't mean the Anni is over-tempered. Spin a high-quality recording of simple instruments, such as Margarita Balanas playing the first Saint-Saëns cello concerto [Linn Records CKD 662], and there's plenty of air in the sound. Other headphone amps may throw even more information at you, but the Anni's mix of detail and ease of listening will suit most headphones with which it's used.

VERDICT

Is this a mini-amp with a fine headphone output, or a 'head-fi' design also capable of driving small speakers? However you look at it, Chord's Anni is a great choice for desktop audio with a sound tailored to flatter partnering equipment.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 600/32/8ohm)	184mW/3385mW/124mW (ph)
Dynamic power (<1% THD, 8/4/2/1ohm)	13W / 20W / 35W / 60W (spkr)
Output Impedance (20Hz-20kHz)	450-600mohm (headphone)
A-wtd S/N ratio (re. 0dBV/0dBW)	95.9dB / 81.0dB (headph/spkr)
Distortion (20Hz-20kHz, 10mW/32ohm)	0.0009–0.85% (headphone)
Distortion (20Hz-20kHz, 0dBW)	0.02–5% (speaker)
Freq. resp. (20Hz-20kHz/100kHz)	+3.6 to –0.28dB/–4.0dB
Power consumption	10W (1W standby)
Dimensions (WHD) / **Weight**	160x43x97mm / 0.63kg

hi-fi news OUTSTANDING PRODUCT

Integrated amplifier/USB DAC. Rated at 70W/8ohm
Made by: Copland, Copenhagen, Denmark
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.copland.dk; www.absolutesounds.com
Price: £2988 (+£198 Bluetooth module)

AUDIO FILE

Copland CSA70

An all-transistor amp from the tube-centric Copland? Okay, this is not quite a first – that would be the brand's mid-'90s CSA8/CSA18 – but the CSA70 might still surprise some with its absence of bottles.

Offered in silver or black, an MM phono stage wisely included, this '2x70W/8ohm' integrated lacks nothing but balanced inputs, while the Bluetooth/Wi-Fi option (£198) – not present in our sample – widens its appeal to those weaned on tablets and mobile phones.

The CSA70 could therefore serve perfectly as an intro to the company and suit those considering new hardware at mid-level. There's also a degree of future-proofing to the spec, including pre- and line-outs so you can expand it with a second amp, upgrade a stage at a time, or incorporate it into an AV system.

'This comprehensive integrated amplifier sacrifices very little'

Digital sources are hosted via coax, Toslink or USB, joined on the amp's back panel by RCA sockets for pre-out/line-out, the phono stage and trio of line inputs, plus multi-way speaker binding posts. Around the front, a large rotary on the left of the fascia selects the source while level is set by a motorised, analogue control on the far right. In the middle is an 'early iPod'-styled display indicating the chosen input. There's also a 6.35mm headphone socket, which mutes output to your choice of loudspeakers.

Styling is clearly modelled on Copland's larger CSA100 and CSA150 hybrid tube/transistor amps [*HFN* Aug '20 and Jun '21] and is exceptionally easy on the eye, such that anything sitting next to it looks virtually rococo. Under the bonnet the transistor output stage also bears some similarity with that premiered in the CSA100 and '150, although their triode preamp stages are traded here for a wide-bandwidth solid-state circuit. The digital section is also tailored to the CSA70, with a Cirrus DAC instead of the seemingly ubiquitous ESS chip.

EMOTIONAL IMPACT

To determine the overall character of the unit we stuck to CD via the optical input and vinyl through the MM phono. With the latter, Kirsty MacColl's rendition of The Kinks' 'Days' on a 10in single [Virgin KMAN2] showed that the CSA70 can deliver emotional impact akin to that of a circa £500-£1000 outboard phono stage. It wasn't just the warmth in the vocals – this amplifier was clearly voiced by designers at home with the sound of valves – but the cavernous soundstage. This track enjoyed a wall-to-wall spread.

Bass energy was also profound, confirmed by the lower registers on the remastered edition of Warren Zevon's *Stand In The Fire* [Asylum/Run Out Groove ROGV-116]. This live album is one of those rarities where the sound is as pristine as a carefully crafted studio recording, and the bass and percussion was so rich and abundant that our partnering LS3/5A loudspeakers sounded surprisingly weighty.

The album also provides audience sounds – the cheers when Zevon launches into 'Werewolves Of London' – and a sense of the concert hall space. No 'Rice Krispies' applause, just an authentic wave of adulation. Better still, Zevon's edgy, often acidic vocals were uncoloured. As for CD, another live album, Nina Simone's *The Montreux Years* [BMG BMGCAT461DCD], sounded astonishingly visceral, even as the CSA70 conveyed the subtle changes in the singer's distinctive voice as the set journeyed through five gigs across 22 years.

This amplifier kept pulling out the surprises, which it shouldn't have as we're no stranger to Copland electronics. Willy DeVille's 1989 masterpiece *Victory Mixture* [Wagram Music 3354386] was captivating in the way the CSA70 presented his growly vocals above the crystalline backing from pianist Dr John and other New Orleans luminaries. This LP is all about feel and expression, and the atmosphere was so utterly redolent of the Big Easy that we got a craving for some piping-hot gumbo.

ABOVE: **Precision-milled rotaries select source and volume with a smaller control stepping through the digital input options. Central dial carries the IR 'eye' and input/status LEDs. Inside the well-built chassis an MM phono preamp is joined by an XMOS-based USB input and Cirrus WM8740 DAC-based digital line stage. The output stage uses a pair of On Semiconductor transistors**

VERDICT

Copland's impressive run continues with this compact, comprehensive, affordable integrated amplifier that sacrifices very little. The CSA70 is a joy to use, styled as gorgeously as everything the company makes, and delivers the sound of a thoroughbred. It's a brilliant buy, even for tube lovers...

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	90W / 140W
Dynamic power (<1% THD, 8/4/2/1ohm)	110W / 206W / 352W / 475W
Output imp. (20Hz–20kHz, Line/Amp)	1.03kohm / 0.011-0.068ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.00 to –0.25dB/–1.9dB
Digital jitter (USB / S/PDIF)	200psec / 250psec
A-wtd S/N ratio (DAC/Amp)	104.8dB (0dBFs) / 82.9dB (0dBW)
Distortion (DAC, 0dBFs/Amp, 0dBW)	0.0005-0.0008%/0.0027-0.038%
Power consumption (idle/rated o/p)	21W / 275W (1W standby)
Dimensions (WHD, each unit)	435x135x370mm / 13kg

AUDIO FILE

Monoblock power amplifier. Rated at 400W/8ohm
Made by: D'Agostino LLC, Connecticut, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.dagostinoinc.com; www.absolutesounds.com
Price: £90,000 per pair

hi-fi news OUTSTANDING PRODUCT

D'Agostino M400 MxV

This monoblock just may be the least fussy or fiddly power amp one can aspire to in the extreme high-end. Sure, something cute like a PS Audio Sprout [*HFN* Feb '15] can be lifted with one hand and requires no degrees in electronics, but that's 'real world' gear. At £90,000 per pair, the M400 MxV is as exclusive as it gets, and is styled to boot.

Once in place – and at 43kg each without optional stands you may need help – it couldn't be easier. Input is via a single balanced XLR, while sturdy binding posts take spade connectors or bare wire. The only other items on the back are an IEC mains socket, remote on/off triggers and a three-way mini-toggle to select the meter illumination.

D'Agostino says the MxV updates to its M400 and S250 power amplifiers feature 'new concepts, components, and manufacturing techniques developed and learned throughout the past decade'. Even the suffix itself has resonance with the company's history: MxV stands for 'Mass times Velocity', the definition of Momentum.

> 'Ted Nugent's guitar had all the grit, fuzz and wail you could want'

As expected, the upgrades are comprehensive and much trickles down from the flagship Relentless [*HFN* Mar '20]. The latter's fresh front-end circuitry has been adapted for the MxV, while all major sections – power supply, input, driver and output stages – have been revised. A new transformer winding pattern is credited with the potential for over 50% more current from the same transformer 'footprint', while a new 'stability circuit' claims a 50% increase in operating bias.

These upgrades are retrofittable to earlier Momentums, including the S200, S250 and M300, but all require a return to the factory. The price quoted to upgrade an M400 to M400 MxV status is £29,000 per pair.

PETTY DIFFERENCES

Since Day 1, Momentum amps have delivered bass solidity and extension rivalled by the precious few. Allied to this foundation has always been a retrieval of detail which would impress Sherlock Holmes, and transient attack never less than fast, smooth and convincing. What was needed was a touch more warmth – and the M400 MvX monoblocks sound positively cuddly.

Tom Petty's *'Wildflowers' & All The Rest* [Warner 093624899112] was delivered with rich guitars of various textures, set against Petty's distinct, slightly nasal voice, while the title track possessed a freshness that was boosted by the amplifier's greatest strength: its openness.

What the MxV upgrade brings to the party is a removal of any trace of the artifice often attributed to solid-state amplification or digital sources. It was clear with The Amboy Dukes' *Journey To The Center Of The Mind* [Repertoire REP 4176WZ; CD] that the openness, speed, clarity and other strengths of the M400 MxV were having the opposite of the anticipated effect: instead of forcing the listener to hear more of what was *wrong* with digital playback, it seemed to be showcasing what was *right*. So Ted Nugent's fiery guitar had all the grit, fuzz and wail you could want.

Indeed, the MxV upgrade is a game-changer. Vronsky and Babin's *...Music For Two Pianos*, on open-reel [RCA FTC-2034], brought a real-life piano into the room, and the scale and presence these recordings manifested via the M400 MxV was nothing short of the truly realistic. Handel's *Royal Fireworks Music* [Vanguard VTC-1621], with Edmund Appia conducting the Vienna State Opera Orchestra, arrived with width, breadth, and yes, height. The sound from these amplifiers wasn't merely captivating or convincing. It was mesmerising, reaching a new level in authenticity.

ABOVE: Each mono chassis houses a huge 2.2kVA PSU supporting 14 pairs of ON Semiconductor power transistors mounted onto solid alloy/copper side plates. At the front, while the glowing green meter – inspired by a watch hand from 1783 – has become D'Agostino's signature 'look', its function is decorative rather than indicative!

VERDICT

These MxV upgrades reassert D'Agostino's Momentum monoblock amplifier as the 'state of the art', outperforming its forebear with greater openness and transparency, plus bottomless bass and limitless power. It's that special.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	435W / 840W
Dynamic power (<1% THD, 8/4/2/1ohm)	440W / 845W / 1650W / 3050W
Output imp. (20Hz–20kHz/100kHz)	0.175-0.195ohm / 0.275ohm
Freq. response (20Hz–20kHz/100kHz)	–0.0dB to –1.12dB/–9.7dB
Input sensitivity (for 0dBW/400W)	126mV / 2525mV (balanced)
A-wtd S/N ratio (0dBW/400W)	84.0dB / 110.0dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.048-0.75%
Power consumption (Idle/rated o/p)	77W / 730W (1W standby)
Dimensions (WHD) / **Weight**	318x133x546mm / 43.1kg (each)

Clearly, limitless.

"It's almost as if the streamer is stripping away everything that isn't music and presenting the DAC with the signal alone with precise yet fluent form that sounds so right it's uncanny."

Jason Kennedy | **HiFi+**

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AUDIO FILE

Preamp and mono power amps. Rated at 465W/8ohm
Made by: darTZeel Audio SA, Switzerland
Supplied by: Absolute Sounds Ltd, UK
Telephone: 0208 971 3909
Web: www.dartzeel.com, www.absolutesounds.com
Prices (Preamp/Monoblocks): £41,998/£81,000 (each)

hi-fi news OUTSTANDING PRODUCT

darTZeel NHB-18NS/NHB-468

Finished in the company's now iconic mix of golden fascias and red casework, darTZeel's NHB-18NS is the latest version of a preamp first seen with the NHB-108 power amp [*HFN* May '08], while the new NHB-468 monoblock is a development of the longstanding NHB-458 [*HFN* Jun '12]. Add two of the mono amps to the preamp, and you get a system with a price just under £204,000.

The preamp has been evolved to accommodate a range of plug-in cards. There are four standard configurations, our £41,998 sample offering an MC phono input, one XLR balanced in, and four line-ins on both RCA and darTZeel's proprietary Zeel input. Each input 'card' is essentially a preamp in its own right, dedicated to the connected source – switching inputs selects the appropriate module, bypassing all other input circuitry. Common to all versions is input gain trimming and, on those with a phono input, switchable eq tailoring. Outputs are on RCAs, XLRs and 'darT' BNCs, the latter to accommodate darTZeel's proprietary interconnects.

A glass side panel on the NHB-468 reveals its inner workings, including a huge PSU transformer and ten similarly generous reservoir caps, all mounted on a floating suspension. A key upgrade over the '458 concerns what darTZeel calls its CP2C (Constant Power to Current) design, said to deliver appropriate power to the speakers at all times while countering the back-EMF from the drivers.

POWER AND PRECISION

In our Lab tests, the NHB-468 easily exceeded its 465W rating, making it a powerhouse amp by any standard. However, used with the uncommonly quiet NHB-18NS preamp, it's capable of remarkable finesse, too. Our trio created a delicate and well-ordered sound, with wonderful luminosity, weight and speed.

> 'An ability to get to the heart of the music is what you're buying here'

Pat Kopatchinskaja and Sol Gabetta's *Sol & Pat* [Alpha Classics ALPHA757] features a variety of violin and cello duets. The fine depiction of the tonality of the two instruments was especially attractive here – that and the sheer musical enjoyment on offer. And more complex recordings also flourished, such as Elton John's *The Lockdown Sessions* [EMICD 2051], where the darTZeel amps' big, weighty presentation delivered the 'Rocket Man' chorus to grand effect, as well as the pounding bass and strings on Ol' Reg's cover of The Pet Shop Boys' 'It's A Sin'.

The amps conveyed all the instrumental power in the Marin Alsop/Philadelphia Orchestra *Porgy & Bess* recording [Pentatone PTC5186883], notably the rasping brass and thundering percussion. You can also feel how well the NHB-468s monoblocks, driving big B&W 800 D3 [*HFN* Oct '16] floorstanders, summon up the live presence of the recording.

That ability to get to the heart of the music is what you're buying here. darTZeel trio's can be all polite and clean when you want, but even better they can be *growly* and clean. It's Swiss precision, not reserve, you know.

ABOVE: There's no mistaking the heavyweight red and gold livery of darTZeel's amplifiers! A smoked glass window reveals the custom circuitry within, including a 2kVA PSU transformer mounted on a 'floating' chassis

BELOW: Pre's rotaries govern input selection ('Enjoyment Source') and volume ('Pleasure Control')

VERDICT

Yes, this is more than most of us will ever spend, but that doesn't stop these superb amplifiers being objects of desire by dint of their sheer musical enjoyment.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	550W / 920W
Dynamic power (<1% THD, 8/4/2/1ohm)	625W / 1017W / 565W / 305W
Output imp. (20Hz–20kHz, pre/power)	70ohm / 0.295–0.305ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to –0.15dB/+0.0 to –0.55dB
Input sensitivity (for 0dBV/0dBW)	275mV (pre) / 139mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	80.0dB (pre) / 86.2dB (power)
Distortion (20Hz-20kHz, 0dBV/10W)	0.0023-0.0030%/0.073-0.15%
Power consumption (idle/rated o/p)	52W/740W (5W, preamp)
Dimensions (WHD, Power amp)	277x460x511mm / 70kg (each)

hi-fi news OUTSTANDING PRODUCT

Triode tube amplifier. Rated at 30W into 4-8ohm
Made by: Engström, Sweden
Supplied by: Boyer Audio Ltd, UK
Telephone: 0330 223 3769
Web: www.engstromsound.com; www.boyeraudio.com
Price: £29,500

AUDIO FILE

Engström ARNE

This 'entry-level' offering from Engström, effectively a 'Mk2' version of the ARNE integrated amplifier, should not be mistaken for 'affordable' at £29,500. And that ticket is before you've considered custom powder-coated finishes (£520) for both the body of the amp and the slanted fascia, ceramic coatings for each area at £1050, or having the front-panel finished in high gloss paint if you want to spend an extra £2100.

Furthermore, in addition to the four Czech-made Emission Labs EML 300B valves fitted as standard for the power amp section, you can opt for German Elrog ER300Bs for an extra £1400, or splash out on Japanese-made Takatsuki TA300Bs for a little over £3000.

Named for Swedish-born jazzman Arne Domnérus, the ARNE amplifier is about as minimal a design as you can get, despite its substantial dimensions – 480x320x450mm (whd) – and taxing 38kg weight.

'When this amplifier is good it's not just good – it's wonderful'

Engström says that its thick aluminium chassis and adjustable feet (with ceramic balls inside) 'root the amplifier firmly to the supporting surface' – but the sheer heft of the thing should ensure that wherever you place it, it'll stay put.

Controls are no more than an input selector for the two sets of balanced XLRs and unbalanced RCA line-ins, and a 48-step volume control. Both are slightly awkward to use by the way they're 'cut into' the slanting fascia, but remote volume and mute operation is also possible from the 'hot seat'.

All the input sockets are high-quality studio-type fitments from WBT, while a single set of two pairs of combination terminals from the same source handle speaker connection. The latter are fed from 5ohm transformer taps, meaning no selection of different taps is required to suit various speaker impedances. In short, this is an amp designed to offer valve characteristics plus solid-state-style convenience, not least because it's rated to deliver 2x30W – a figure matched in our Lab tests.

MUSICAL MASTER

The ARNE is priced quite a way from the company's £138,950-a-pair ERIC Encore power amp [*HFN* Oct '21], but it's no Engström-lite. In PM's listening room feeding Bowers & Wilkins' big 801 D4 speakers [see p95], it showed itself more than capable of not just driving these ~90dB sensitivity floorstanders, but doing so with assured conviction.

The immediate impression the ARNE gave was of the kind of presence and immediacy of a live performance, plus that sense of listening to real music. There's nothing artificial or 'show your working' going on here, and neither is there any impression of the music being warmed over or glossed, or of limited dynamics. This amp just delivers the music, purely and with authority – at least within its limits.

You'll find those limits if your enthusiasm gets the best of you and volume levels are pushed. Yet within that 'envelope' there's a musical flow that's hard not to enjoy, whether with the electronic washes of Klaus Schulze's *Deus Arrakis* [SPV 246152, 44.1kHz/24-bit], or the crisp instrumentation of guitarist Rob Luft's 2017 album *Riser* [Edition Records EDN1095].

Amidst that organic flow the ARNE reveals high detail and tight drive – it brought fine insight into Sheryl Crow's vocal and the layers behind her on pop hit 'All I Wanna Do' [A&M 00602445584369]. Meanwhile, all that power – by 300B standards – allowed it to just about holds things together with Gov't Mule's take on Pink Floyd's 'Shine On You Crazy Diamond' [*Dark Side Of The Mule*; Provogue PRD 7446 2], delivering a big, full sound and bags of atmosphere.

ABOVE: Seen here in its matt white livery, the ARNE hosts two D3a driver/phase-splitter triodes and a push-pull pair of artisan 300B power triodes per channel. Motorised rotaries cater for input selection and volume while the unswitched speaker outs are fed from 5ohm transformer taps (a good compromise for 4-8ohm loads)

VERDICT

This isn't an amplifier for everyone, whether by dint of its size, its heat, its price, limited output or demand on speaker sensitivity. But when Engström's ARNE is good, it's not just good, but simply wonderful.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	31W / 39W
Dynamic power (<1% THD, 8/4/2/1ohm)	30W / 40W / 25W / 15W
Output imp. (20Hz–20kHz/100kHz)	1.48-1.65ohm / 3.15ohm
Freq. resp. (20Hz–20kHz/100kHz)	–1.9dB to –0.18dB/–2.1dB
Input sensitivity (for 0dBW/30W)	211mV / 1320mV
A-wtd S/N ratio (re. 0dBW/30W)	90.7dB / 105.5dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.16-4.2%
Power consumption (Idle/Rated o/p)	350W / 350W
Dimensions (WHD) / **Weight**	480x320x450mm / 38kg

AUDIO FILE

Integrated amplifier. Rated at 110W/8ohm
Made by: Exposure Electronics Ltd, Lancing, UK
Supplied by: Exposure Electronics Ltd
Telephone: 01273 423877
Web: www.exposurehifi.com
Price: £2250

Exposure 3510

Nostalgia doesn't come any better than this: an integrated amp that looks like an escapee from the '80s, all minimalist and line-level and 440mm wide. But Exposure has been around for close to 50 years, so this isn't a play at retro from an arriviste brand. Rather, the 3510 is a device for reminding people of simpler times, and even its realistic price of £2250 equates to around £440 in 1980, typical of a quality British integrated of that era.

Specs-wise, too, the 3510 could have been plucked from the pages of the *1980 Hi-Fi Yearbook*, although key areas of the preamp circuit design, and even the choice of power transistors, have witnessed a process of evolution and improvement over the decades. Otherwise Exposure operates under the very sensible 'if it isn't broken, don't fix it' school of engineering.

> 'Toto's "Africa" arrived with snap, transient attack, and rich bass'

Line inputs are labelled Aux/Phono, CD, Aux 2 and AV (with fixed gain for switchable home theatre bypass), and there's a tape in/out loop and two preamp outs, the latter useful for feeding subwoofers or other power amplifiers. The first of those inputs hints at the 3510's compatibility with MM and MC plug-in modules, and there's also a USB/DSD64-compatible DAC option.

All connections are on single-ended RCAs, accompanied by two sets of loudspeaker outputs which accept banana plugs only. But there's no A/B speaker selector switch (as was once the fashion) as the dual outputs are instead here to simplify bi-wiring.

The amp's uncluttered front panel features a rotary source selector, row of labelled LEDs to indicate the chosen source, and a ¼in headphone socket which mutes the speaker outs when in use. The supplied remote is a new system commander with buttons for other Exposure gear, but here deals with source, volume up/down and mute.

Switch-on is accompanied by a brief muted period, after which LEDs illuminate and tell you the system is operational: one for power on, one for the source indication and the last on the motorised volume control so you can see its position from the listening seat. When you hit mute, the source and level LEDs are extinguished.

SILKY THRILLS

The Exposure 3510 served up Harry Nilsson's *Schmilsson* [Mobile Fidelity UDSACD 2219], in its tougher moments, with the kind of impact you might expect of a heavyweight, high-end amplifier. By contrast, the aching ballad 'Without You' demands great finesse, which the 3510 exhibited by the bushel, but it was the bass run that opens 'Jump Into The Fire' that made us realise this wasn't 'just another integrated'.

For this track, the bass guitar is the lead instrument with Herbie Flowers in virtuoso mode. The 3510 reached down deep, exhibiting speaker control like a Sgt Major, but pulled off a deft trick: instead of the bass overshadowing all else, the guitars at the extreme ends of the soundstage hovered around it, while Nilsson's vocals nestled on top of the big, fat, bottom end. All the while, there was a coherence and openness that reminds one of the album's vinyl offering.

On 'Without You', the stage is set with the most delicate piano trills, along with gorgeous strings and horns. What the 3510 did to surprise was to present them with a 'tube-like' silkiness, perhaps making it a solid-state amp for those who want but cannot cope with valves.

If a system is magical, you will listen to anything. *Now Yearbook 1983* [Sony/EMI 94398 73352] is an historical document of the time the charts were dominated by the likes of Spandau Ballet, Wham!, Spandau Ballet, Duran Duran, or the tedious Spandau Ballet. But there's Toto's 'Africa' on there too, and it arrived with a bang – snap and transient attack, supported by rich bass.

Instruments here are a mix of real and electronic, but the sound drew us in, emphasising the 3510's sheer listenability. So too did Jeff Beck's immortal *Truth* [Mobile Fidelity MFSL 2-502], where it handled every element with skill, from the textures of Rod Stewart's vocals to Beck's myriad guitar sounds. So a tip for Exposure dealers: demo the 3510 integrated with this album, and you'll sell one every time.

ABOVE: Available in solid black or titanium casework for a lighter look, the 3510 offers an updated industrial design with logic-controlled rotary input selection and motorised volume. Under the bonnet, the 3510 features two pairs of Toshiba power transistors per side (on internal heatsinking) fed from a beefy linear PSU. Phono and DAC modules are optional

VERDICT

Exposure's 3510 integrated amplifier illustrates just how much fun a simple system of source/amp/loudspeakers can be. It works faultlessly, sounds superb and drives hungry speakers with ease. You want painless hi-fi? You got it.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	135W / 220W
Dynamic power (<1% THD, 8/4/2/1ohm)	166W / 318W / 546W / 762W
Output impedance (20Hz–20kHz)	0.010–0.022ohm
Freq. response (20Hz–20kHz/100kHz)	–0.19dB to –1.0dB / –15.8dB
Input sensitivity (for 0dBW/110W)	25mV / 265mV
A-wtd S/N ratio (re. 0dBW/110W)	80.2dB / 100.6dB
Distortion (20Hz-20kHz, 1W/10W)	0.003–0.058% / 0.006–0.051%
Power consumption (idle/rated o/p)	25W / 370W (1W standby)
Dimensions (WHD) / **Weight**	440x115x300mm / 12kg

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ULTRALATIK

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DESIGNED & HANDMADE IN SCOTLAND

AUDIO FILE

Integrated amplifier. Rated at 200W/8ohm
Made by: Citech Co., Ltd, South Korea
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: https://eng.hifirose.com; www.henleyaudio.co.uk
Price: £5499

HiFi Rose RA180

South Korea's HiFi Rose sure knows how to capture the attention of audiophiles, first by launching do-it-all streaming players featuring huge touchscreens and options galore, and now this 'steampunk' integrated amplifier with no fewer than sixteen loudspeaker terminals.

Yet unlikely as it seems, the RS150 network player [*HFN* Jun '21], with its massive 14in display, and the all-analogue RA180 amplifier share a common denominator. The giveaway is the seventeen buttons, knobs, and sliders on the front fascia, together with some VU meters and cogs thrown in for good measure. Whatever industrial design eccentricities HiFi Rose might embrace, the brand is all about offering a multitude of features.

'You'll be tempted to crank the volume high and let the RA180 rock'

The RA180 also offers something 'different' by housing four GaN (gallium nitride) transistor-based Class D amp modules under its precision-milled bonnet. The higher switching speed and power handling of these transistors improves the linearity of HiFi Rose's homebrew modules, a claim reinforced by its invention of the term 'Class AD' operation. Class A distortion at low levels with the efficiency of Class D? That's what the creative licence would suggest.

The amp's retro-futuristic styling features myriad dials and controls, combined as if by a Swiss watchmaker's atelier taken over by a Red Bull promotional team. The diversity of control types initially looks chaotic, but there's a form of organisation that divides the front panel into functional zones, and once mastered, using the RA180 is a wonderfully tactile experience.

Some controls are typical, such as those for input selection, volume, and (defeatable) tone control. More unusual are ones in the phono stage and high-pass crossover zones, which let you dial in a variety of pre-RIAA equalisation curves. Wouldn't it have been more useful to offer variable MC loading?

The aforementioned four identical amp modules claim a total output of 4x200W, and thanks to the sixteen speaker terminals, they can be used together when utilising one of the RA180's specialised modes, either to bi-amplify a pair of speakers (two amplifiers per channel) or bridging each pair into a higher-powered stereo configuration, where the output becomes a whopping 2x400W.

DRIVING ABILITY

The unusual design and feature-rich specification of the RA180 almost hide the fact that this is, at its heart, a punchy, authoritative and thrilling-sounding amplifier. It has a slightly warm character that pairs nicely with revealing loudspeakers, and a strong sense of driving ability. For an integrated design, there's plenty of grunt on tap, and a sound signature that's somewhat reminiscent of the pre-Hypex Marantz units of yore.

Massive Attack's 'Angel' [*Mezzanine*; Virgin 7243 8 45599 2 2] remains a track to challenge claims of amplifier power, and the RA180 handled this moody piece, and its complex deep percussion, without stress. There was also no lack of energy playing Jack White's 'Fear Of The Dawn' [Third Man Records TMR-752; 96kHz/24-bit]. This features overdriven guitars and a relentless drumkit, and the temptation is there to crank the volume and just let the RA180 rock out – which it does, ably. Using a Pro-Ject X1 [*HFN* Aug '19] with mid-output MM pick-up, it also steered the vinyl version of the album with confidence. Tracks were presented on a quiet background, dynamically and rhythmically assured.

Changing over to a discrete, bi-amp configuration didn't add much to our enjoyment of these pieces, but the difference was more apparent on the contemporary folk of Lizz Wright's *Grace* [Concorde 0888072028654]. Here the four amps within the RA180 drove our pair of Canton 7K floorstanders [p97] with ease, ensuring the drums in 'Barley' resounded through the room, while increasing soundstage scale and separation. In this instance, HiFi Rose's quest for extreme versatility really paid off.

ABOVE:
The RA180's substantial ~17kg weight is almost entirely due to its thick alloy chassis – the standard of fit and finish is superb while inbuilt Wi-Fi allows app control. On the fascia a geared dial drives a high quality volume control, discreet meters provide an indication of output while a selection of levers, knobs and a slider cater for balance, input, tone, HP filter, phono amp settings, mute and more

VERDICT

Even if you don't relish the eccentric but well thought-out fascia of this feature-packed integrated, the Class D topology, with four GaN transistor amps, offers oodles of power and an engrossing performance.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	260W / 275W
Dynamic power (<1% THD, 8/4/2/1ohm)	255W / 483W / 296W / 167W
Output imp. (20Hz–20kHz/80kHz)	0.04-0.38ohm / 22ohm
Freq. response (20Hz–20kHz/100kHz)	–0.04dB to +0.04dB / –2.8dB
Input sensitivity (for 0dBW/200W)	140mV / 1970mV
A-wtd S/N ratio (re. 0dBW/200W)	67.5dB / 90.5dB
Distortion (20Hz-20kHz, 10W)	0.0008–0.045%
Power consumption (Idle/Rated o/p)	45W / 255W (one channel)
Dimensions (WHD) / **Weight**	430x110x350mm / 16.7kg

hi-fi news OUTSTANDING PRODUCT

Network-attached integrated amplifier. Rated at 70W/8ohm
Made by: Sound United/D&M Holdings, Kanagawa, Japan
Supplied by: D&M Audiovisual Ltd, UK
Telephone: 02890 279830
Web: www.marantz.com/en-gb
Price: £2199

AUDIO FILE

Marantz Model 40n

Stylish, network-attached amplifiers are carving a successful niche, and the Model 40n is Marantz's own pitch. Brand fans needn't fret, however, for while this £2199 do-it-all machine includes high-res wired/wireless streaming, USB and HDMI ARC inputs, the chassis is properly hi-fi-sized and the styling, in black or gold-silver, is pure 'Marantz'.

Indeed, the retro-tinged aesthetic is similar to that of the Model 30 [*HFN* Jan '21], but under the hood they couldn't be more different. The £2899 Model 30 is a purely analogue (input) design, powered by Class D Hypex Ncore modules, while the Model 40n – rated at 2x70W/8ohm – is based on the Class A/B design of older

'Its power and speed keep the dynamics of the music intact'

Marantz amps. Improvements have been made to the discrete HDAM modules, the power supply and power amp, improving its ability to drive low impedance loads.

The interior is packed to the gills with digital connectivity, all alongside a comprehensive MM phono stage, while a toroidal transformer, internal heatsinking and shielding between DAC and phono components gives it its near 17kg weight. And on the back panel, although the '40n is chiefly intended as the one and only box in the room, there's a busy array of connections. Old-school optical and coaxial digital inputs are located above three line-level inputs (on RCAs), an RCA sub-out, tape loop/line out and that MM input.

Missing in action is USB-B for connection to a PC, suggesting Marantz is aiming at a slightly different user – one more eager to use the amp's integrated HEOS platform, or Bluetooth, for digital listening. In that digital stage is a tried-and-tested ESS DAC, with a choice of two digital filters, instead of the proprietary MMM solution found in the SA-KI Ruby [*HFN* Jan '19] or SACD 30n [*HFN* Jan '21],

SOUND OF TRADITION

Under the guidance of 'Sound Master' Yoshinori Ogata and other Marantz luminaries, the company strives to deliver a familiar 'house' sound, and this character, which stresses vocal performance and a wide soundstage coupled with a touch of midrange warmth, is in evidence through the Model 40n. Across its various inputs – HEOS module, phono stage, even HDMI ARC – this integrated amp offers an impressively musical performance. It's cohesive and inviting, with more of a focus on conveying rhythm and feel than nth-degree accuracy, while there's plenty of drive and dynamic punch.

It's very much a performance as a whole that the Model 40n serves up, making *Bach: Brandenburg Concertos* by Akamus [Harmonia Mundi; 192kHz/24-bit] a captivating listen. This is a particularly fine example of traditionalist playing, and from the first note it engulfed us in rich brass tones, the Model 40n then going on a fast-paced tour of these classics. It didn't present the concertos with the enveloping feel that the Model 30 managed during some A/B comparisons, but there's sufficient power and speed to keep the pacing and dynamics of the music intact.

With *Beethoven Transformed Volume 1* from Boxwood & Brass [Resonus Classics RES10249], we were able to appreciate the intricacy of the pieces courtesy of the Model 40n's DAC, and while Marantz has always seemed more interested in the totality of the musical presentation, not detail *per sé*, this suits these recordings perfectly. A subjectively tempered treble made the clarinets on 'Alla Marcia' less piercing, while retaining the sense of climax they're meant to evoke. This – let's call it 'friendly' – way of presenting music is far from analytical, but the performance never feels incomplete.

As for the MM phono input, spinning *Explorations In Sound* [Marantz/Vinyl Me] via a Pro-Ject X1 [*HFN* Aug '19] delivered a fulsome midband and fluid presentation that suited tracks like John Carpenter's 'Night' and Aldous Harding's 'The Barrel' down to the ground, with succinct instrumentation laid out across a large soundstage.

ABOVE: Styling cues are culled from the Model 30, including the 'porthole' display and rotaries for input, volume and tone controls. The internal design, however, is inspired by earlier amplifiers and includes a Class A/B power amp with HEOS/HDMI, DAC and MM phono modules all separately screened within the chassis

VERDICT

Marantz's Model 40n offers the convenience of a network amp without letting go of the traditional values that are key to the brand's identity – and popularity. This smart integrated caters for both streamers and vinyl fans alike with a stylish package, engaging presentation and sufficient driving power.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	94W / 155W
Dynamic power (<1% THD, 8/4/2/1ohm)	117W / 218W / 383W / 337W
Output imp. (20Hz–20kHz, Pre/Amp)	525-661ohm / 0.045-0.062ohm
Freq. response (20Hz–20kHz/100kHz)	+0.0dB to –0.1dB/–0.85dB
Digital jitter (48kHz/96kHz)	<5psec / <5psec
A-wtd S/N ratio (DAC/Amp, 0dBW)	108.8dB / 93.4dB
Distortion (DAC, 0dBFs/Amp, 10W)	0.0004-0.0007%/0.0004-0.003%
Power consumption (Idle/rated o/p)	50W / 278W (1W standby)
Dimensions (WHD) / **Weight**	443x130x432mm / 16.7kg

AUDIO FILE

Preamp and mono power amps. Rated at 560W/4ohm
Made by: MBL Akustikgeräte GmbH & Co. KG, Berlin, Germany
Supplied by: Stranger High Fidelity, Real World Studios, Wilts
Telephone: 07702 155847
Web: www.mbl.de; www.stranger.info
Prices (Pre & Monoblocks): £11,500/£13,900 (each)

hi-fi news OUTSTANDING PRODUCT

MBL N11/N15

By any standards, MBL's Noble series is a looker. The £11,500 N11 preamplifier and N15 mono power amp, at £13,900 each, are relatively slender units, hand-built and immaculately finished in gloss black or white, with accents for the control elements available in either polished gold or palinux (silver).

'With the amplifiers' weighty low-end also comes real agility'

The N15 monoblock claims an impressive 560W/4ohm output via its Linear Analogue Switching Amplifier (LASA) technology, this based on an Ncore NC1200 Class D module from Hypex fed from a substantial linear PSU. A proven benefit of the Hypex modules is their 'load independence' where neither frequency response or, to a degree, distortion, is unduly influenced by speaker impedance.

MBL's N11 preamplifier is also an all-analogue design principally controlled via a large, proximity-sensing display (not a touchscreen) and 'smart keys' whose function changes according to the mode being accessed. Alternatively, you can drive the N11 with MBL's stylish disc-shaped remote control.

As standard the preamp has seven inputs – five on RCAs, two on XLRs – but it can be specified with either a phono input or an additional XLR pair. The N11's outputs are equally flexible, with seven sets across fixed- and variable-level RCAs and XLRs. MBL also provides a 'Unity Gain' mode, which simplifies the signal path by eliminating excess gain so the N11 behaves as a simple – elegant – buffered volume control.

DIGGING FOR VICTORY

The N15 amps drove both Bowers & Wilkins 801 D4 [p95] and Wilson Audio Alexx V [p111] floorstanders in convincing fashion, as you might expect given their prodigious output. Fed Yello's *Touch Yello* set [Polydor 7640161960251], the system dug deep into the electronic rhythms, while also finding character in Till Brönner's trumpet and accompanying guest vocals.

ABOVE: Finely finished in a choice of gloss black or white with polished chrome and gold centrepieces, the N11/N15 trio (one N15 only shown here) is a statement piece. The N11's 5in TFT display is not a touchscreen although it, and the six 'smart keys', detect your approach...

In broad terms, the N11/N15s combine low-end drive with a clean, informative midband and a treble that, while not the last word in extreme detail, avoids abrasiveness.

Adele's *30* album [Columbia G0100046925635], while delivered with weight and richness, was also attended by some slight stressing of the singer's sibilants. If you thought long and hard about it, it was mildly distracting, otherwise not. We were on much safer ground with Sting's *The Bridge* set [A&M Records 3858707], relishing this system's tight, cohesive performance right from the Police-like opener 'Rushing Water'. There were powerful drums, chopping guitar and tight multi-layered vocals, countered later on the album by the acoustic guitar and simple percussion of 'Fragile'.

The N11/N15s' focused soundstaging and tonal ability served the introspective nature of this album well, but they don't demand exemplary production to show what they can do. A David Bowie 2000 live set from the BBC Radio Theatre [*Brilliant Adventure (1992-2001)*; Parlophone/ISO DBX 5] retained real spirit and vivacity. The Wilson Alexx Vs were driven by palpable confidence, revealing a sound of excellent presence and ambience across the eclectic set-list. It was a thrilling, enveloping listen, with generosity and impact served up in equal measure.

VERDICT

Not for those who crave every detail being hurled at them, this MBL pre/power trio instead majors on the finer points of music-making. The sound blends drive, focus and timbral nuance, and with a weighty low-end comes real agility too.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	352W / 615W
Dynamic power (<1% THD, 8/4/2/1ohm)	402W / 786W / 1.50kW / 1.0kW
Output imp. (20Hz–20kHz, pre/power)	96ohm / 0.016–0.04ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to –0.2dB / +0.0 to –4.5dB
Input sensitivity (for 0dBV/0dBW)	323mV (pre) / 116mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	101.1dB (pre) / 82.0dB (power)
Distortion (20Hz-20kHz, 1V/10W)	0.00006-0.0003/0.0004-0.0095%
Power consumption (idle/rated o/p)	25W/665W (21W, preamp)
Dimensions (WHD, Pre/Power)	450x150x450/450x150x425mm

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AUDIO FILE

Integrated DAC/amplifier. Rated at 300W/8/4/2ohm
Made by: McIntosh Labs, Binghamton, NY, USA
Supplied by: Fine Sounds UK
Telephone: 01592 744710
Web: www.mcintoshlabs.com; www.finesounds.uk
Price: £14,995

hi-fi news OUTSTANDING PRODUCT

McIntosh MA9500

What should one demand from an integrated amp with a £14,995 price tag? There's an expectation it should be beautifully built and finished, and hail from a respected marque. There must be a sense of owning something special and exclusive. The performance, meanwhile, will need to be at or near the top of what's possible at the price, with no shortage of power. McIntosh's MA9500 ticks all these boxes.

This 2022 overhaul of the earlier MA9000 [*HFN* Sep '18] appears largely the same in terms of feature count, styling and ergonomics, but has some important engineering interventions. These include a new PSU claiming a substantial increase in dynamic headroom, upgraded 'low-noise' components, and – arguably most importantly – the 'Roon Tested' DA2 Digital Audio Module that replaces the DA1 DAC of its predecessor. This features the quad-balanced ES9028PRO DAC and offers DSD512 support, up from DSD256, via its single USB-B input.

> 'Programmed drums enjoyed great attack and tight syncopation'

Other digital hookups are coaxial and optical, proprietary MCT (for SACD data), plus HDMI ARC – there's still no network connection – and analogue sources are well catered for by six unbalanced RCA inputs, two balanced XLR ins, and an MM/MC phono with adjustable loading. Balanced and unbalanced preamp outputs are also included.

Like its predecessor, this new leviathan boasts a 300W output (conservative, in practice), achieved via McIntosh's custom Autoformer design with 8ohm, 4ohm and 2ohm output connections. Styling is typical of the company, with the black front panel dotted with the brand's signature green and blue illumination, and a central fluorescent blue alphanumeric display, below chrome-trimmed tone controls and large power meters, adding to the retro-cool aesthetic.

LEAN MACHINE

It's important to stress this modern transistorised amp is a long way from the famous McIntosh 'valve sound' of yesteryear. It's spry and lean, and doesn't attempt to embellish the natural tone of instruments and performers. Playing Genesis' 'The Ballad Of Epping Forest' [*Selling England By The Pound*; Charisma CASCD 1074], bass was a little light, but that's to be expected from this era and genre, the amp instead throwing plenty of sunlight upon the brighter, more shiny instruments used, without going over the top.

It had no problem driving B&W's 801 D4s [*HFN* Nov '21], connected initially through the 4ohm taps but switched to 8ohm once we found this gave a subtle boost to the bass. This wasn't a 'night-and-day' change, however, as the MA9500's intrinsically taut and detailed nature didn't go away. The brass stabs on ABC's 'The Night You Murdered Love' [*Alphabet City*; Mercury 832 391-2] were satisfyingly raw, with an earthy timbre free of glare.

So this amp can be lots of fun, but this character comes from its muscle rather than any tonal euphony. With the chunky sounding ABC track the sound was fast and grippy, with programmed Linn drums enjoying great attack and tight syncopation with the rhythm guitar and chiming keyboard work. Drum machine hi-hats shimmered away mechanically, locking everything in perfect time.

Soundstaging, meanwhile, was suitably expansive. The MA9500 has a scale and a depth that illustrates why people buy high-end amplifiers – everything sounds vivid and high intensity, so much so that it can almost surprise you...

ABOVE: The hallmark blue power meters – remarkably accurate into 8ohm – are underlined by a row of controls for the eight-band ±12dB equaliser, input select and volume rotaries. The MA9500 is a riot of colour once illuminated...

VERDICT

Perhaps ideally suited to smooth, warmish-sounding speakers, McIntosh's MA9500 is distinctively styled, highly versatile and hugely powerful. Most importantly, it's engaging across a wide range of genres, while its trio of output taps invite subtle sound tuning.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	430W / 425W
Dynamic power (<1% THD, 8/4/2/1ohm)	597W / 557W / 582W / 1020W
Output imp. (20Hz-20kHz, Pre/Amp)	215ohm / 0.135-0.155ohm
Freq. response (20Hz-20kHz/100kHz)	–0.3dB to –0.25dB/–3.2dB
Digital jitter (48kHz/96kHz)	220psec / 125psec
A-wtd S/N ratio (DAC/Amp, 0dBW)	111.0dB / 87.4dB
Distortion (DAC, 0dBFs/Amp, 10W)	0.0006-0.0075%/0.0007-0.002%
Power consumption (Idle/rated o/p)	71W / 1.2kW (1W standby)
Dimensions (WHD) / **Weight**	445x240x559mm / 45.8kg

hi-fi news OUTSTANDING PRODUCT

Stereo power amplifier. Rated at 200W/8ohm
Made by: NAD Electronics International, Canada
Supplied by: Sevenoaks Sound and Vision, UK
Telephone: 01732 459555
Web: http://nadelectronics.com; www.sevenoakssoundandvision.co.uk
Price: £3399

AUDIO FILE

NAD M23

Canadian manufacturer NAD is rolling along at pace. The M23 is its latest amplifier to feature high-performance Purifi Eigentakt Class D technology, following in the footsteps of the £3999 M33 BluOS-capable integrated [*HFN* Aug '20], the seven-channel £4499 M28 power amp, and the £1749 C 298 stereo amp [*HFN* Oct '21]. That NAD should have chosen to adopt Eigentakt for a trio of models before upgrading its flagship two-channel Masters series power amp is a surprise – but it proves to have been worth waiting for.

'Lush synth, masses of low strings, and sweet electric guitar'

The Purifi power plant, rated at 200W/8ohm (380W/4ohm) and likely good for all but the most demanding of loudspeakers, is effectively the same as that of the M33 – to the point that NAD suggests an M23 and M33 can be run together, each in bridged mode, for a system with dual mono amplification rated at 700W apiece.

The gap between the M23 and M33 is interesting. Spend an extra £600 on the latter and you get not only a typical roster of digital and analogue inputs, but also network audio playback and the option of 'room correction' via the Dirac Live platform. So this model's appeal is to those already in ownership of a cherished preamp or network DAC.

We described NAD's C 298 as having 'the look of a black box recorder'. This Masters model, with its brushed all-alloy casework and bevelled black front-panel, is more akin to something you'd find in the First Class cabin. Even the 'magnetic iso-point' feet, which combine an integrated, pointed foot with a black magnetic 'shoe', have style.

Living with it is hassle-free, and setup might take you just a matter of minutes. Below the speaker terminals and inputs on the rear panel are switches to choose between 'SE' (single-ended) and 'balanced' for both channels, put the amp into bridged mode, dim the front-panel LED if desired, and set gain to high, mid or low. There's also a 12V trigger port enabling a connected device to switch the M23 out of standby when it itself is powered on.

LAP OF LUXURY

The M23 shares the hallmarks of its C 298 sibling – the power it brings to bass and drums, and the speed in which it responds to transients – but sounds more refined, more luxurious. That this blend of dynamic ability and smooth delivery comes from a small(ish) box, easily able to shake a large floorstander or grow the stature of a standmount, is the icing on the cake.

Picking its 'best' attribute is tricky, because it has a chameleonic ability to get the best from a variety of genres. For example, with Ellie Goulding's poppy chart hit 'Burn' [*Halcyon Days*; Polydor 3747026], the M23 zeroed in on the keyboards and vocal, sounding inherently upbeat. On the other hand, with John Carpenter's 'Theme From The Fog' [*...Original Film Soundtrack – Expanded Edition*; Silva Screen SILCD1301] it held on to the low, long synth notes and didn't let go, creating a tense, eerie atmosphere.

It's always a revealing listen, to the point you might say the M23 subjectively imparts nothing of its own to the sound. Yet that would be ignoring the bass, which is so front-and-centre it can sometimes feel that there's more of it than there should be – but always in a good way. The bassline in Don McLean's 'Everybody Loves Me Baby' [*American Pie*; Capitol Records 72435-84279-2-9], as much a part of the fun as the honky-tonk piano, sounded rounded and supple. Likewise, when there's a kick-drum or tom-tom roll to be captured, this amplifier hits hard and deep.

Anyone still believing that Class D amplification has a brittle, unmusical bent should hear NAD's M23 in full flight. Dave Gilmour's '5 A.M.' [*Rattle That Lock*; Columbia 96kHz/24-bit FLAC] featured lush mid-tone synthesiser, massive swells of low strings, and sweet electric guitar with a hint of bite. It was a layered, textured and full-size presentation that revealed NAD's amp to have clean power, plus a delicate disposition when needed. This black and silver slab rocks.

ABOVE: The Masters chassis, with its softly rounded edges, is lifted directly from the M33 BluOS amplifier – minus the colour touchscreen and headphone amplifier/socket of course! Inside, two of Purifi's Eigentakt Class D modules are direct-coupled to the speaker outputs

VERDICT

NAD upgrades its premium stereo power amp and the results are superb. The stylish M23 has all the dynamic elan and exceptional bass weight you'd expect, wrapped in a sound performance that befits its Masters series positioning.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	237W / 455W
Dynamic power (<1% THD, 8/4/2/1ohm)	268W / 543W / 730W / 420W
Output imp. (20Hz–20kHz/100kHz)	0.006–0.007ohm / 0.001ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0dB to –0.07dB/–10.8dB
Input sensitivity (for 0dBW/200W)	184mV / 2599mV
A-wtd S/N ratio (re. 0dBW/200W)	88.4dB / 111.4dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.00012-0.0045%
Power consumption (Idle/Rated o/p)	22W / 422W (1W standby)
Dimensions (WHD) / **Weight**	435x133x396mm / 9.7kg

AUDIO FILE

Integrated tube/hybrid amplifier. Rated at 100W/8ohm
Made by: PrimaLuna, The Netherlands
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.primaluna-usa.com; www.absolutesounds.com
Price: £6198 (£6348 with MM phono stage)

hi-fi news OUTSTANDING PRODUCT

PrimaLuna EVO 300 Hybrid

Amplifiers from PrimaLuna have been all-valve until now, but the EVO 300 Hybrid – at £6198 its costliest product – is driven by founder/CEO Herman van den Dungen's understanding that the marketplace is full of hungry or difficult speakers that benefit from excess power and the promise of limitless headroom. His secret weapon is designer Jan de Groot, who for over a quarter-century has been working with FETs, a far more efficient way of pumping out in excess of 100W/ch than via valves.

'PrimaLuna has voiced this hybrid amplifier with a pin-point focus'

In contemporary fashion, the EVO 300 Hybrid features an all-tube preamp section containing, in this instance, six hand-selected 12AU7s (two for input duties and four as drivers). It provides five line-level RCA inputs, a home theatre bypass, tape and sub outputs and a mono/stereo switch. There's only one set of speaker terminals, whereas its tube-only EVO 300 sibling [*HFN* Mar '21], by necessity, offers a choice of 4 and 8ohm transformer taps.

The amp will take an optional £150 MM phono board (not fitted here), and supports headphones via a 6.35mm socket located on the front panel near a switch that mutes the speaker output (as opposed to headphone use automatically muting the speakers).

A nicely-machined alloy remote control complements PrimaLuna's rugged enclosure for the main PSU and MOSFET heatsinks, and blue/black chassis contrasting with the silver or black fascia. All together you have a handsome, confidence-inspiring amplifier package ready to fight it out with the big boys.

FINELY FET-TLED

PrimaLuna has voiced this amplifier with a pin-point focus on achieving the best of its two internal technologies. To answer the obvious question, yes, this sounds like an EVO 300 on steroids, but it tempers that amplifier's all-tube warmth with a detectable whiff of added precision and detail.

ABOVE: The EVO chassis has rotaries for motorised volume and input selection. Three 12AU7 double-triodes are used per channel in the preamp stage while the MOSFET power amp is 'hidden' inside the amplifier's rear enclosure

Through the 'basic' take of The Beach Boys' 'Susie Cincinnati' [*Feel Flows*; Universal 02508 80218], the EVO 300 Hybrid exhibited a facility for two separate types of smooth transitions. In the physical sense, the left-right panning of the sound was flawless, while the other transition, from loud-to-soft, was equally consistent. This contributed to a sense of wholeness, which hit home with The Beach Boys' signature vocals hovering above the percussion and the rich bass.

Nothing sounded disparate, as if to belie any fear that hybrid amps have a split personality. It called to mind that audio unicorn – the perfect full-range, crossover-less driver – translated here to tubes under the lid that are most assuredly *not* overwhelmed by the FET output.

The Dixie Rebels' eponymous album on open-reel [Command RS4T-801] has everything you want to test a system, including punchy trumpets, sinewy clarinet, extended bass and a disconcerting space in the middle that makes speaker listening seem like headphone usage. The EVO 300 Hybrid handled it all with incredible gracefulness and delicacy. Similarly, with Lou Rawls' 'At Last' [eponymous; Blue Note CDP 7 91937 2], the amp treated the trial of reproducing two contrasting vocals as child's play. It was as if the tubes were dealing with Lou, while the power FETs were taking care of Dianne Reeves!

VERDICT

PrimaLuna's EVO 300 Hybrid amplifier strikes a magical balance that will either confuse or delight, and proves you can have your cake, eat it, and have enough cash left over for a good bottle of wine.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	120W / 205W
Dynamic power (<1% THD, 8/4/2/1ohm)	123W / 217W / 340W / 360W
Output impedance (20Hz–20kHz)	0.053–0.15ohm
Freq. response (20Hz–20kHz/100kHz)	–0.4dB to –0.4dB / –5.55dB
Input sensitivity (for 0dBW/100W)	38mV / 390mV
A-wtd S/N ratio (re. 0dBW/100W)	88.5dB / 108.6dB
Distortion (20Hz-20kHz, 10W)	0.16–0.033%
Power consumption (Idle/Rated o/p)	99W / 405W
Dimensions (WHD) / **Weight**	385x205x405mm / 25kg

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AUDIO FILE

Eight-channel power amp. Rated 150W/8ohm per ch
Made by: Primare AB, Sweden
Supplied by: Karma-AV Ltd, York
Telephone: 01423 358846
Web: www.primare.net; www.karma-av.co.uk
Price: £4500

Primare A35.8

If the A35.8 – an eight-channel power amp from a brand best known for its stereo hardware – appears a little out-of-left-field, it begins to make sense once you drill down into the detail. In a 5.1 AV system it allows the left, right and centre channels to all be bridged, or for the centre channel to be bridged in a 7.1 set-up. And it's this bridging (plus bi-amping) that gives it appeal to music lovers.

Granted, no one would buy this amp to run a pair of speakers from just two channels (Primare's A35.2 sibling is available to do that for less money), but its ability to deliver a claimed 150W/8ohm from all channels simultaneously, plus the potential to bridge its eight outputs to four pairs, and then use these to bi-amp for a claimed 740W/8ohm per speaker, should have owners of loudspeakers equipped with split crossovers licking their lips.

'Textures and tones shone through, some subtle, others biting'

Delivering this grunt are four stereo Class D Hypex NC500 modules, sufficiently compact and cool-running for them to be housed in an easy-to-manage 430mm-wide enclosure. In keeping with the 'keep it short' signal routing, each module is connected directly – solder-free – to the loudspeaker binding posts. The powerplant for this octet of amplification is a new switchmode PSU employing custom wound transformers and APFC (active power-factor correction) for improved efficiency.

The A35.8 has a sleek, minimalist design, embellished only by the brand logo on the fascia, which hides a standby button and status LED. More LEDs, visible inside the chassis, glow red during boot-up to show the clipping sensor system is operational. These then dim, but will flash if you've forced any of the amp's modules out of their comfort zone. There's also an auto-sense mode, which wakes the amp from standby when a signal is detected, plus (defeatable) auto-standby.

ALL'S SWELL

Even using just one stereo Class D module – into Perlisten S7t SE floorstanders [p106] – the A35.8 impressed from the get go. It clearly has a lot under the bonnet, and this manifests in the way it digs down into the lowest octaves of music, giving basslines a big, thick sound. It stands to attention with transient details, but, even better, there's a feeling of loose-limbed energy all the time, not just when the explosive moments arrive.

The amp responded superbly to the low-slung guitar riffs of Opeth's *Blackwater Park* album [Music For Nations CDMFN 264] with an overall sound that felt fit to burst our listening room, but its delivery of musical swells was apparent in other places. For example, Etta James' mesmeric 'At Last' [Geffen Records; 192kHz/24-bit] begins with a mass of strings, quivering and melodic, that grows in both volume and size, before her pristine vocal sashays in centre-stage. What we'd previously considered to be a sedate, easy-listening track now sounded close to operatic.

Nor does it take long to realise that – with a good-quality preamp in the system – the A35.8 has a musical ear too. 'Mobocopter', on Danny Elfman's *Midnight Run* soundtrack [MCA; 44.1kHz/16-bit], features brass chords, fuzz-guitar, piano, hard-hit snares and jangly percussion. It's a deceptive range of textures and tones, but all shone through, some subtle, others biting. Transparency, that facet sought after by many, is obvious.

With the amp's four channel pairs bridged into the Perlisten towers, the result was even more of a sense of fast-footed power. Listening notes included 'beefier' and 'fuller' – these are just words, of course, but help to describe how rich and inviting this configuration sounded with Dusty Springfield's 'Son Of A Preacher Man' [*Dusty In Memphis*, Rhino Atlantic R2 8214; 96kHz/24-bit], or how much sheer presence and dynamic attack it bought to the drum track of Joe Bonamassa's 'Sloe Gin' [eponymous; Provogue PRD 7218 2].

ABOVE: Black and silver fascia colours are offered, the A35.8's power switch also forming part of the central logo. Inside, a substantial switchmode PSU, with APFC, feeds eight Hypex NC500 Class D modules arranged in four stereo banks. Each amplifier 'module' has XLR and/or RCA inputs (selected via toggle switches) and may be bridged to form higher-power single-channel outputs

VERDICT

An eight-channel amp won't be on every stereophile's wish-list, but the A35.8 is a product that straddles the worlds of multichannel and hi-fi with aplomb. It delivers scads of responsive power, while its bridging ability keeps hungry loudspeakers well fed – and all from a box no bigger than some monoblocks...

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	195W / 373W
Dynamic power (<1% THD, 8/4/2/1ohm)	197W / 400W / 765W / 399W
Output imp. (20Hz–20kHz/100kHz)	0.019–0.021ohm / 0.19ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0dB to –0.8dB/–6.9dB
Input sensitivity (for 0dBW/150W)	289mV / 3553mV
A-wtd S/N ratio (re. 0dBW/150W)	88.8dB / 110.6dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.00045–0.0055%
Power consumption (Idle/Rated o/p)	62W / 220W (1W standby)
Dimensions (WHD) / **Weight**	430x145x400mm / 15kg

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GREAT BRITISH SOUND SINCE 1968

AUDIO FILE

DAC/preamp and power amplifier. Rated at 125W/8ohm
Made by: T+A elektroakustik GmbH & Co. KG, Germany
Supplied by: The Audio Business Ltd, Wilts, UK
Telephone: 01225 704669
Web: www.taelektroakustik.de; www.theaudiobusiness.co.uk
Price: £5400 (DAC 200)/£3490 (A 200)

hi-fi news OUTSTANDING PRODUCT

T+A DAC 200/A 200

The intent of the Series 200 is, says T+A, to 'combine the appearance of a Midi system with a high-end performance'. When you lay eyes on the DAC 200 and its button-heavy compact chassis, you have to concede the first part of that mission has been accomplished.

This DAC/preamp maintains the smart styling and exemplary build quality of T+A's earlier £6600 HA 200 headphone amp [*HFN* Aug '20], as does the new A 200 power amplifier. All Series 200 components (there's also a 'multi-source player, the £4400 MP 200) are the same size (32cm wide) and shape, and offered in black or silver anodised aluminium.

> 'A feeling of accuracy from top to bottom, and a steely low-end'

Ethernet sockets on the back of the DAC 200 tease network playback, but only handle system control, and USB playback is from a computer via USB-B, as the unit's USB-A port is for charging an external device. These omissions aside, it's well-specified, with a 'two DACs in one box' approach where LPCM inputs up to 768kHz/32-bit are served by a quartet of Texas Instruments DACs, and DSD sources are routed to T+A's custom 'True 1-bit DSD converter'. Meanwhile, digital and analogue sections, including power supplies, are galvanically separated by isolators from Silicon Labs, while the Class A preamp section is fully discrete.

T+A's A 200 power amplifier is a balanced Class D design, utilising Purifi Eigentakt technology. Power output is conservatively rated at 2x125W/8ohm, and the amp modules work in conjunction with T+A's Intelligent Safe Control monitoring/protection, plus voltage stage circuitry trickled down from its flagship HV Series amps [*HFN* May '17].

FRUITY PAIRING

As a duo, the A 200 and DAC 200 go together like strawberries and cream. The DAC hardware adds a mastery of detail and tone to the power amp's purposeful, controlled demeanour, even if the digitally-equipped preamp seems to do more of the heavy lifting, its ability to sweeten vanilla CD/44.1kHz files being a notable trait.

Overall, the voicing tends toward smooth in the upper registers while avoiding excessive low-end warmth, and pin-sharp soundstaging is assured. 'Leaving Trunk', from Taj Mahal's self-titled debut [Columbia; 44.1kHz/16-bit], features foot-tapping blues rhythms and a throaty vocal, and the T+A pair gave it the white-glove treatment. There was a precise feel to its portrayal of instrumental textures, but all were blended so slickly that the urge was just to sit back and enjoy.

Bass felt a little shy on this song, but CSNY's 'Helpless' [*CSNY 1974*, Rhino Records; 96kHz/24-bit] shone a more favourable light on the system's low-end handling. The A 200 isn't the most belligerent power amplifier out there, trading exuberance for poise, yet it still mines low-end details obligingly. And of the DAC 200's digital filters, both the FIR options, to our ears, sounded more balanced than T+A's in-house Bezier filters, with 'FIR 2' giving a marginally fuller feel to the '70s supergroup's live antics.

So a sojourn into the DAC's options is recommended – just don't expect the T+A pairing to give a big, warm hug. An uncoloured midband and upper-bass leads to a sound some might find a little 'dry', although the benefit of this is a feeling of accuracy from top to bottom, and a steely, lean low-end. At the same time, the A 200 offers excellent power and grip – the form factor screams 'bookshelf', but it has the grunt to go bigger!

ABOVE: The DAC 200's [top] busy front panel has pushbutton input selection, digital filter and bandwidth options all joined by a rotary for volume/menu navigation. The A 200 power amp [bottom] offers A/B speaker selection and a facility to *decrease* the damping factor

VERDICT

There's a delightful sense of synergy – not just in terms of build and style – between these two T+A components. The A 200 is a mature-sounding power amp with superb driving ability, and a perfect partner for the DAC 200's refined, insightful and light-footed approach.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	145W / 285W
Dynamic power (<1% THD, 8/4/2/1ohm)	146W / 289W / 290W / 152W
Output imp. (20Hz–20kHz, Pre/Amp)	22ohm / 0.023-0.024ohm
Freq. resp. (20Hz–20kHz/100kHz)	+0.0 to –0.15dB/–12.2dB
Digital jitter (USB / S/PDIF)	11psec / 10psec (48kHz/24-bit)
A-wtd S/N ratio (DAC/Amp)	116.1dB (0dBFs) / 88.4dB (0dBW)
Distortion (DAC, 0dBFs/Amp, 0dBW)	0.0009-0.001%/0.0005-0.0025%
Power consumption (Preamp/Amp)	20W / 280W (20W idle)
Dimensions (WHD)	320x100x340mm (each)

hi-fi news OUTSTANDING PRODUCT

Two-way standmount loudspeaker
Made by: AVID Hi-Fi Ltd, Kimbolton, Cambs
Supplied by: AVID Hi-Fi Ltd
Telephone: 01480 869900
Web: www.avidhifi.co.uk
Price: £20,000 (including stands)

AUDIO FILE

AVID Reference Four

ABOVE: AVID's diagonally-braced cabinet comprises 15mm-thick alloy panels and hosts a 160mm polymer-coned bass/mid driver with 28mm silk-dome tweeter, both sourced from Morel

While most loudspeakers offer variations on the wooden box theme, AVID's £20k Reference Fours use all-alloy cabinets, with panels up to 15mm-thick, sitting on six 'risers' attached to a thick alloy baseplate. Hence why each of these relatively compact speakers, at just under 37cm tall, weighs 25kg.

Furthermore, the cabinets might only be 21cm wide but they're also 44cm deep, meaning they'll overhang most aftermarket stands. AVID has this predicament covered, however, with its own supports that – once fitted – result in an assembly standing just under a metre tall.

Despite the price, the Fours are actually the entry point to a range topped by the £200k Reference One floorstander. Shared across the lineup are enclosures constructed in-house using aerospace-grade aluminium plates and with all fixings concealed. Resonance control is a feature of the alloy construction, and AVID side-steps the stuffing and bracing we might see in a typical wooden cabinet. Instead, tuned mass dampers are mounted via decoupling assemblies to the rear of the Reference Four's drivers, soaking up unwanted vibration and reducing transmission into the cabinet panels.

> 'These are speakers to grab the listener and command attention'

These drivers are sourced from Morel, the 28mm silk-dome tweeter, mounted behind a short flare on the baffle to improve off-axis behaviour, is a feature of all Reference models. The Reference Four's 160mm bass/mid driver uses a damped polymer composite cone, mounted in a 'Uniflow' basket designed using aerodynamic principles to smooth the airflow behind. Bass tuning is via a down-facing port that vents into the space created by the riser feet and onto a cone-shaped diffuser.

The crossover uses ClarityCap capacitors, as in all the Reference speakers, along with 'Copper Connect' technology for reduced signal path resistance. Similarly, the air-core inductors are wound with 1.25mm-thick enamelled copper wire, its low DC resistance promising better bass control.

PICTURE PERFECT

After some experimentation with different amplification, we settled on a Naim set-up of NAC52/52PS/NAP250 [*HFN* Jan '14]. While the speakers needed the preamp to be turned up a bit to achieve decent SPLs (our Lab measured sensitivity at just 85.5dB/1kHz), this combination seemed to get into its stride at higher levels, giving these speakers plenty in reserve to accommodate musical dynamics.

Noteworthy were the focused, expansive soundstage 'picture' they created; the weight and control of the bass; and the speed with which they reacted to the music, enhancing detail and ensuring rhythms motored along without a hint of blur. On New Order's 'Blue Monday' [*Total*; Rhino 5052498647958], where a thumping bassline threatens to swallow all before it, the Fours stole none of the weight while still casting an image of excellent clarity.

There's a deft blend of extended bass and masses of information here. Tracks from KLF's Arkive download release simply powered out of the Fours in a way they really shouldn't from speakers this small. Big, thundering low frequencies, allied to plenty of detail – what more could one want?

Yet they're just as convincing with jazz, chamber or orchestral recordings, delivering a well-scaled view of the 'band' on Sonoko Miriam Welde's Bruch Violin Concerto [Lawo Classic LWC 1222; DXD], and nailing the chilly ambience of James Rutherford's reading of Schubert's *Winterreise* [BIS BIS-2410]. These are speakers to grab the listener and command attention, and they do that regardless of the genre.

VERDICT

With their tank-like build and equally hefty price-tag, AVID's Reference Four standmounts feel anything but entry-level, and they reward with a sound of remarkable power, insight and involvement.

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	85.5dB / 85.3dB / 82.9dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	6.28ohm @ 168Hz 47ohm @ 66Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–54° @ 79Hz +46° @ 55Hz
Pair matching/Resp. error (200Hz–20kHz)	1.05dB/ ±3.2dB/±3.0dB
LF/HF extension (–6dB ref 200Hz/10kHz)	29Hz / 25.7kHz/26.1kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.7% / 0.55% / 0.5%
Dimensions (HWD) / **Weight** (each)	367x210x440mm / 25kg

AUDIO FILE

Three-way reflex-loaded floorstanding loudspeaker
Made by: B&W Group Ltd, West Sussex
Supplied by: B&W Group Ltd
Telephone: 0800 232 1513
Web: www.bowers-wilkins.co.uk
Price: £30,000

hi-fi news OUTSTANDING PRODUCT

B&W 801 D4

Six years since the arrival of Bowers & Wilkins' 800 Series Diamond range, here we are with an all-new flagship lineup for the Worthing-based company, available in a new Satin Walnut finish, as well as the Gloss Black, White and Satin Rosenut of the previous series. And while the £30,000 801 D4, tested here, looks similar to the 800 D3 [*HFN* Oct '16] it replaces, much has changed.

Internally there's a reinforced version of B&W's honeycomb-like Matrix internal bracing, and the entire frame is now coupled to the front baffle via a substantial steel plate. Meanwhile, the top-plate of the main enclosure is aluminium, rather than the wood, and is now a structural component, further stiffening the construction of the cabinet and the platform for the Turbine Head above it. This contains the 150mm Continuum Cone FST 'floating' midrange driver, which has gained foam wedges to the rear of its mounting, has revised Tuned Mass Damping, and its concertina-like rear suspension 'spider' is now replaced by a skeletal, and very flexible, 'Biomimetic' alternative.

> 'The 801 D4's bass is truly menacing, fully energising the room'

Above it, the 25mm diamond dome tweeter now sits in a longer, re-engineered 'Solid Body Tweeter-on-Top' rear-dissipation system. As for the dual Aerofoil woofers, these might look bigger but the size is an optical illusion caused by the use of a new foam anti-resonance plug at the centre of each. Behind the cones, the motor system has been upgraded, and single spiders replace the double units of old.

GEM QUALITY

Set up in PM's listening room, and connected to 350W Classé Delta pre/power amps [*HFN* Jun '21], the 801 D4s proved that while they relish a good dose of power, they are capable of astounding results.

Classical music, in the form of Zuill Bailey playing Bach's solo cello suites [Octave OCT-0008; DSD64], showed a marvellous sense of three-dimensionality. And with the level pushed up a little – the 801 D4s will play extremely loud with no stress – the presentation became even more 'real', from the sound of bow on string to the resonance of the body of the instrument.

The entrance of Patricia Barber on 'Shall We Dance?' [*Clique*, Impex IMP7002; DXD] was astonishing in the intimacy of its focus – her voice just hung in the room between the speakers, with the accompanying bass, brushed drums and piano delicious in their clarity. The warmth of the ambience was lovely, as was the way Jim Gailloreto's sax solo soared out of the mix, precisely located and with wonderful breathy reediness and the sense of the keys working.

By contrast, the big slam of the opening of Yes's 'Yours Is No Disgrace' [*The Yes Album*; Atlantic WPCR 15903, DSD64] cannoned out from these speakers. The soundscape was huge, the complex keyboards and driving bassline fused with the drums to drive the track relentlessly, and the harmonies were wide-open.

That mixture of growling low frequencies and absolute detail also served 'The Haunted Ocean' from Max Richter's *Exiles* [DG 00289 486 0445], the bass truly menacing and fully energising the room without ever seeming overblown, and still leaving plenty of space for the detailed instrumentation above it.

VERDICT

Not a match for low-powered tube amps, but driven firmly the new B&W flagships are capable of a sound as informative as it is vivid. They bring to life everything from driving rock to the most subtle of solo instruments and voices, with breathtaking insight into performance and music alike.

ABOVE: The flagship 801 D4 features B&W's 25mm diamond dome 'tweeter on top', a 150mm Continuum cone FST midrange and a pair of 250mm Aerofoil cone bass units, reflex-loaded through a very wide, down-firing port. The metal 'spine' of the 801 D4 completes the 'reverse wrap' cabinet

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	89.7dB / 89.5dB / 87.3dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.37ohm @ 96Hz 24.9ohm @ 41Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–71° @ 48Hz +43° @ 1.39kHz
Pair matching/Resp. error (200Hz–20kHz)	2.2dB/ ±3.3dB/±3.8dB
LF/HF extension (–6dB ref 200Hz/10kHz)	19Hz / 34.7kHz/33.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.25% / 0.05% / 0.25%
Dimensions (HWD) / **Weight** (each)	1221x451x600mm / 101kg

hi-fi news HIGHLY COMMENDED

Fully active, four-way floorstanding loudspeaker
Made by: Cabasse SA, Brittany
Supplied by: Henley Audio Ltd, UK
Telephone: 01235 511166
Web: www.cabasse.com; www.henleyaudio.co.uk
Price: £22,599

AUDIO FILE

Cabasse Pearl Pelegrina

Whether Cabasse's Pearl Pelegrina, made to celebrate the brand's 70th anniversary, is a more domestically acceptable version of its flagship La Sphère depends on how much of a visual impact you want your speakers to make. Yes, its 'ball' may measure a more compact 42cm, but there's no denying that it makes a statement, whether in white or black.

Nothing here is conventional: the main, front-facing driver assembly is what Cabasse calls a 'tri-coaxial' array, joined by a rear-firing 30cm bass unit, and each driver element is powered separately thanks to DSP crossover control. Cabasse claims 300W apiece for the treble and mid, 1250W for the lower-mid, and a massive 1850W for the bass.

> 'Breathily authentic saxophone was set against tinkling piano'

Amplification and connections – including Wi-Fi/Ethernet, Bluetooth, and analogue and digital inputs – are housed in the Pearl Pelegrina's base. This is therefore a 'system in a speaker', complete with auto room optimisation and what Cabasse calls its 'Dynamic Fidelity Enhancer', which analyses the incoming signal and tailors the speaker's response to the chosen listening level. All of this is governed via the StreamControl app, which also grants access to music services (Deezer, Qobuz, Tidal, *etc*) plus the user's own files on network storage or USB drives.

IN CONCERT

It's quite easy to get lost during the configuration process, so these speakers are best treated to a full dealer installation (they also stand 1.3m tall and weigh 45kg apiece, so any setup help will be welcome). Once up and running, however, it's clear the Pearl Pelegrina is hugely capable, with a sound of great substance and detail, along with focused soundstaging.

They can be a bit polite when used in their 'Neutral Tone (HiFi Mode)' setting; choosing 'High Tone' gave a little more snap to Anna Fedorova's *Shaping Chopin* [Channel Classics CCS 43621], as it did with rock music, albeit with some risk of brashness setting in. There are then three bass-enhancing 'Low Tone' settings, but you'll likely not need them. There's no shortage of bass from these speakers, as shown by the growling opening and dynamic swings of Ravel's 'La Valse' [*Maurice Ravel: Orchestral Works*, Chandos CHSA 5280; 96kHz/24-bit]. Even with ELP's 'Karn Evil 9' [*Brain Salad Surgery*, BMG download; 96kHz/24-bit] the Pelegrinas use their politeness to sound crisp and fast, while delivering good insight into a full-on recording.

Espen Eriksen Trio's live take on 'In The Mountains' [Rune Grammofon RCD2227; 96kHz/24-bit] develops an intimate soundstage, with the sax breathily authentic against tinkling piano and rosiny bowed bass. But then, just when you think you've found the sweet spot, the Pelegrinas present the ultra-dense all-star cover of Pink Floyd's 'Sheep' [*Animals Reimagined*; Cleopatra Records CLO2573] as an all-out onslaught. Far outside these French speakers' comfort zone? Not a bit of it.

VERDICT

Cabasse's artfully styled Pearl Pelegrinas require a better manual for DIY setup, and there are times when the sound can feel slightly hard. Yet they do so many things right, from their ability to go loud to the substantial detail and impact they can deliver.

ABOVE: A 42cm spherical 'cabinet' is mounted atop a Lissajous pattern frame with the treble, midrange, low midrange and subwoofer amplifiers, and custom DSP, all housed inside a circular base

HI-FI NEWS SPECIFICATIONS

Pair matching/Resp. error (200Hz–20kHz)	4.1dB/ ±3.9dB/±4.2dB
LF/HF extension (–6dB ref 200Hz/10kHz)	<20Hz / 35.6kHz/33.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.25% / 0.03% / 0.6%
Dimensions (HWD) / **Weight** (each)	1280x480x480mm / 45kg

AUDIO FILE

Floorstanding three-way loudspeaker
Made by: Canton Elektronik GmbH + Co. KG, Germany
Supplied by: Signature Audio Systems, UK
Telephone: 07738 007776
Web: www.canton.de/en; www.signaturesystems.co.uk
Price: £5700

hi-fi news OUTSTANDING PRODUCT

Canton Reference 7K

The Reference lineup from Canton marks the apex of its engineering thinking, combining years of experience with new modelling software and a freshly built testing laboratory. It's topped by three 'crown jewels' – the £24,000 1K, £15,750 2K and £11,500 3K – all with tapered-baffle cabinets. Three more affordable floorstanders sport more traditional but still very attractive enclosures, including the £5700 7K auditioned here.

Standing a little over 1m tall, but measuring 42cm deep and weighing 33kg with plinth, the 7K needs manoeuvring with some caution. Its rigid cabinet, made from a 50mm multilayer composite wood material, is divided internally into two chambers, the top one housing a 174mm midrange driver, the lower one a 25mm tweeter and pair of 174mm woofers. These dual bass units output via a downward-firing port onto the speaker's base, which is supplied with a choice of spikes and 'decoupling' polymer feet.

> 'These anthemic songs never ran out of steam or sounded muddied'

Behind the scenes is a three-way 220Hz/3kHz crossover network featuring custom-made internal wiring and passive components tested to 'reference-grade tolerance guidelines'. Gloriously on show, however, is a 12-layer lacquer finish in gloss black, white or cherry.

EXPLOSIVE AUDIO

Don't let the slick looks fool you into thinking this is a refined-to-a-fault loudspeaker. The 7K is certainly capable of presenting delicate recordings in a sensitive fashion, but it comes into its own when playing explosive, dynamic tracks.

Bass is deceptively rich and punchy, underpinning a very solid midrange performance – great stuff if you're into music that's percussion-driven and painted on a huge canvas, such as the rousing medieval folk metal of *Memento Mori* [Napalm Records NPR1087EB] from German band Feuerschwanz. Canton's substantial cabinets and smart down-firing port ensure these anthemic songs never ran out of steam or sounded muddied, and the taut bass propelled the music without overpowering it.

These heavy metal-friendly qualities served the 7K equally well with *The Berlin Concert* [Deutsche Grammophon 00289 486 1713], a fine recording of John Williams' greatest hits played by the Berliner Philharmoniker. A momentous rendition of *Star Wars*' 'The Imperial March' had us expecting Stormtroopers to start kicking down the door, but it was 'Hedwig's Theme' that showed off the 7K's ability to seduce and delight with full-bodied, textured violins, and an excellent sense of space and soundstage size.

Equally, the voice of Spanish singer Rosalía on her *MOTOMAMI* album [Columbia B09RRHP9RW] should be the true highlight – as it was through the 7K on the track 'Bulerías'. Her sublime vocals were positioned up front and centre, the male backing sat way behind, and the feeling of depth, tonality and scale was noteworthy.

VERDICT

Even Canton's 'small' Reference 7K floorstander might be a bit much if your listening room is not very large, but those with the space will find this mighty three-way floorstander astonishes in its ability to project power and excitement. A high-quality build and finish strengthens the feeling of value for money.

RIGHT: Available in piano gloss black, white lacquer and cherry veneer finishes, the '50mm multi-layer laminate' cabinet includes a downward-firing port that diffuses out through a slot above the plinth. The three 174mm alloy-coned drivers are stiffened with a ceramic/tungsten layer and the 25mm alloy/ceramic dome tweeter includes a waveguide

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.7dB / 87.8dB / 86.3dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.1ohm @ 335Hz 10.1ohm @ 3.2kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	–54° @ 20Hz +31° @ 835Hz
Pair matching/Resp. error (200Hz–20kHz)	2.3dB/ ±2.4dB/±2.5dB
LF/HF extension (–6dB ref 200Hz/10kHz)	43Hz / 29.8kHz/22.8kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.25% / 0.4% / 0.7%
Dimensions (HWD) / **Weight** (each)	1010x250x380mm / 33kg

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AUDIO FILE

Three-way standmount loudspeaker with concentric mid/treble
Made by: ELAC Electroacustic GmbH, Germany
Supplied by: Hi-Fi Network Ltd, London
Telephone: 01285 643088
Web: www.elac.com; www.hifi-network.com
Prices: £6499-£6999 (LS 100 stands, £999)

hi-fi news HIGHLY COMMENDED

ELAC Concentro S 503

For those who felt that ELAC wasn't one for adventurous design, the Concentro series has proved them wrong. More a disparate collection rather than a real product family, virtually every model has its own style, from the menhir-like Concentro and Concentro M to the high-heeled S 507 and S 509 floorstanders. The S 503 tested here in its varnished walnut cabinet commands a £500 premium over the gloss black/white finishes, while its compact shape is ideally suited for living room use.

There's much about the S 503 that intrigues, chiefly its concentric driver, making it a true, three-way ported design. This might not be so unusual, considering ELAC's erstwhile co-operation with British designer Andrew Jones – an advocate of coaxial driver layouts. But in this case the centrepiece of the 'stepX-JET' array is a new generation JET 5c tweeter, not a dome. ELAC has invested heavily in manufacturing – partly by hand – the wafer-thin membrane at the heart of this in-house derivative of an AMT (Air Motion Transformer).

'We've heard slender floorstanders with far less impactful bass'

The S 503's looks are, at first glance, relatively traditional, but on closer inspection it's apparent that this speaker is anything but a classic rectangular box. The base shape of virtually every plane is a trapezium, with, for example, a front baffle that's far broader than the rear. Looking down, the enclosure nearly presents a triangular form.

The baffle, with its broad base and less width on top, tilts gently away from the listener – allowing for better time-alignment between the coaxial stepX-JET driver and the 180mm AS-XR unit below. This woofer is no less eye-catching, with a multifaceted aluminium sandwich foil cone. Aesthetics aside, the idea here is to enhance the cone stiffness and push any resonant modes out-of-band.

ELAC bundles the S 503 with three pairs of alloy 'Directivity Control Rings' (DCRs). Each ring set claims to offer a different dispersion pattern, going from diffuse to more focused, allowing some tuning of mid and treble off-axis response. The 'Fokus' rings are better suited to larger rooms, while 'Spacious' is meant for up-close listening. A standard 'Neutral' ring is pre-fitted. Once set magnetically in place around the dual concentric driver, they are flush with the surround, so are not noticeably a separate part.

CLOSE ENCOUNTER

A strength of the S 503 is its ability to project fine detail out into the room. Whether with the gentle acoustic guitar of Jacob Dinesen's 'Ordinary Guy' [*Let The Hard Times Come*; DALI 5703120112510], or Thelonious Monk's intricate piano on *Live In Rotterdam 1967* [FON-1704029], the speaker delivered both detail and grand scale. There was an enormous sense of space, extending far beyond the cabinet edge – but at the same time a feeling of intimacy. Musicians weren't performing off into the distance, but close by on a wide stage.

This element of the performance was totally convincing, but it's probably worth playing around with toe-in and the subtly effective DCRs to mellow out the sound, because occasionally there's a note that jumps out from the mix with uncontrolled gusto.

Some of the qualities exhibited by the S 503 – the slick detail, the speed and expressiveness – will be recognisable to those with experience of ELAC's earlier JET tweeter designs. But what this new, compact model does better is blend a level of mid/treble coherence with exceptional low-end performance. We've heard slender floorstanding speakers with far less impactful bass – and here it comes from just a single, reflex-loaded 180mm driver. Just be prepared to give the volume knob a good twirl to realise a truly rousing performance!

ABOVE: Small but sophisticated – a concentric 130mm AS-XR mid/JET 5c tweeter hands over to the crystalline-shaped membrane of the 180mm alloy-sandwich AS-XR bass unit at 400Hz. ELAC's LS 100 stands are optional extras

VERDICT

Although less outrageous in terms of design and size compared to the flagship Concentro models, ELAC's S 503 has a performance that surprises from a stylish compact cabinet. The ability to tune the off-axis response is a nice extra, too.

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	83.9dB / 82.5dB / 81.9dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	5.0ohm @ 1.58kHz 22ohm @ 66Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–50° @ 81Hz +24° @ 9.5kHz
Pair matching/Resp. error (200Hz–20kHz)	1.5dB/ ±8.8dB/±9.6dB
LF/HF extension (–6dB ref 200Hz/10kHz)	50Hz / 38.8kHz/38.1kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.1% / 0.35% / 0.45%
Dimensions (HWD) / **Weight** (each)	400x225x372mm / 13kg

hi-fi news OUTSTANDING PRODUCT

Two-way standmount loudspeaker
Made by: The Quest Group dba GoldenEar Technology, CA, USA
Supplied by: AudioQuest UK
Telephone: 01249 848 873
Web: www.goldenear.com; www.audioquest.com
Price: £1499

AUDIO FILE

GoldenEar BRX

It's easy to feel unnerved by the amount of, well, 'technology' squeezed into the compact Bookshelf Reference X (BRX). But then we should remember it hails from American brand GoldenEar, a company that – under the auspices of founder Sandy Gross – has always seemed to approach loudspeaker (and subwoofer) design a little differently to many rivals.

Gross has now left the company, yet the development of the BRX predates his departure and bears the usual hallmarks – not least the styling. There's no plywood or veneered cabinet in a naturalistic finish, instead this speaker features an MDF enclosure wider at the rear than the front, and finished in piano black lacquer. It's lighter than you'll expect, and looks swish, although perhaps not in tune with the modern trend for discreet styling.

Priced £1499, the BRX tops GoldenEar's Bookshelf Series above the older Aon 2 and Aon 3 models, but enjoys more 'trickledown' from the company's floorstanding Triton Series [*HFN* Jun '19]. The distinctive gold-coloured AMT-style planar tweeter, which claims to reach up to 35kHz, is described as being the same as found on the Triton Reference, and below it on the BRX's front face is a 150mm bass/mid driver, also a 'Reference' design, working to a 3.3kHz crossover.

> 'Going well with its bass charms was the BRX's snap and attack'

On each side of the BRX's cabinet are large grilles that cover its pair of side-facing 165mm ABRs. With these in place to tune the speaker's bass response there's consequently no sign of a reflex port on the BRX's rear – all you'll find is a single set of inset binding posts. These allow a flush-fit cable installation and close-to-the-wall placement if desired, although boundary loading from not just one but three bass units needs to be taken into consideration. GoldenEar's own recommendation is a minimum 20cm distance from the rear wall, and as much as possible from either side. Tweeter positioning should be at ear height – not that the company sells any loudspeaker stands to match.

A THRILLING RIDE

GoldenEar says it aims to create a sound with 'as little overt character as possible' – a pledge for neutrality over heightened detail or warm bass. This is an honourable intention but doesn't mean the BRX is without its own sense of character. Listening to it was a thrilling experience, the way it blended deep, expansive bass with expressive, well-resolved mids and treble proving quite remarkable at the price.

It also had a real sense of verve, particularly when positioned around that 20cm recommendation. The funky bass on Sophie Ellis-Bextor's live version of 'Groovejet (If This Ain't Love)' [*Read My Lips*; Polydor 589 987-2] arrived plump and purposeful, and gave the music genuine weight, while going well with the BRX's bass charms was a nice feeling of snap and attack. The Ellis-Bextor track closes with a timbale drum flurry, presented here with a leading edge and bounce that lets you easily picture the percussionist on stage.

Room-filling small speakers will always have admirers, so expect the BRX fan club to be oversubscribed. AC/DC's 'Girls Got Rhythm' [*Highway To Hell*; Epic EPC 510764 2] sounded huge because of the heft of the drums, buoyant bassline, and Bon Scott's lascivious vocals cutting through the rhythm track. This full-bodied feel comes even while the speakers don't create much beyond-the-edge width, particularly with GoldenEar's recommended toe-in.

Stereo imaging is taut, however, with a focus to dense mixes and a clear centre. GoldenEar's pleated HVFR tweeter helps in this respect, digging out subtle detail and high-frequency 'air'. On Norah Jones' jazz/pop smash 'Don't Know Why' [*Come Away With Me*; Parlophone; 192kHz/24-bit], the percussive information – cross-stick 'tocks' and delicate hi-hats – really benefitted from the extended treble.

ABOVE: Removing the curved metal grille reveals a 150mm (6in) polypropylene bass/mid that's supplemented by two side-firing 'inertially balanced 165mm planar infrasonic radiators' (ABRs). Treble is handled by an HVFR (High-Velocity Folded Ribbon) tweeter

VERDICT

The final GoldenEar speaker from Sandy Gross is a triumph. Low-end power and poise, courtesy of its ABRs, is a standout trait, yet the BRX doesn't overdo it at the expense of instrumental and vocal presence, nor fall short when the volume is set high. A cracking compact speaker

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.2dB / 87.0dB / 85.1dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.26ohm @ 198Hz 23.5ohm @ 1.66kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	–52° @ 104Hz +45° @ 905Hz
Pair matching/Resp. error (200Hz–20kHz)	1.5dB/ ±2.5dB/±2.5dB
LF/HF extension (–6dB ref 200Hz/10kHz)	68Hz / 38.5kHz/37.0kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.9% / 0.5% / 0.25%
Dimensions (HWD) / **Weight** (each)	308x205x311mm / 5.4kg

AUDIO FILE

Floorstanding three-way reflex-loaded loudspeaker
Made by: GP Acoustics (UK) Ltd, Maidstone, Kent
Supplied by: GP Acoustics (UK) Ltd
Telephone: 01622 672 261
Web: www.kef.com
Price: £30,000-£33,000 (depending on finish)

hi-fi news OUTSTANDING PRODUCT

KEF Blade One Meta

RIGHT: Subtly remoulded, five cabinet finishes and six driver cone colours are offered. The 12th-gen Uni-Q driver comprises a 25mm alloy dome tweeter, with MAT rear absorber, set into the throat of a 125mm alloy mid cone. Bass is handled by two pairs of opposed (force-cancelling) 225mm alloy woofers, reflex-loaded via two rear ports

Now upgraded in 'Meta' form, KEF's Blade One still looks as startling as it did when it first arrived in 2011. Yet there's method in the madness of its seemingly top-heavy inverted propellor-vane shape, as this is key to KEF's aim of a 'Single Apparent Source' (SAS) loudspeaker.

In practice, this is the thinking behind the company's Uni-Q drive unit taken to its logical conclusion. The Uni-Q places the tweeter at the centre of the midrange driver with the intention of delivering the output of the two drivers as a single, coherent whole. In the Blade model, a 12th generation Uni-Q complete with KEF's Metamaterial Absorption Technology [see *HFN* Jun '21] is complemented by side-firing bass units – the aim being to create the same 'SAS' effect but with greatly extended frequency range.

'Track after track, they created a sonic image free from the cabinets'

The Blade One Meta's 225mm bass drivers are mounted as horizontally opposed pairs, nulling vibrations in the cabinet, with each pair in its own chamber within the enclosure. The cabinets themselves are shaped with complex parabolic curves to eliminate standing waves within, and are fashioned from an 'acoustically inert' material. A hefty base stabilises the tapering design, contributing to the 57.2kg weight of the loudspeakers.

BLADES OF GLORY

Set up in accordance with KEF's instructions – as close as 22.5cm from the rear wall, but at least 1m from side walls, with a toe-in of no more than 10° – the impression created by these 1.59m-tall models is striking… as is the sound.

There was a precision to the subtle opening of Ravel's 'La Valse' [Sinfonia of London/John Wilson, Chandos CHSA 5280; 96kHz/24-bit] that one would expect from very fine, but very small speakers – only it's joined by the added clout and extension of the woofer quartet, which really came into its own with this piece's massed orchestra and dramatic percussion.

These qualities shine whatever the genre. On the title track of Doug MacLeod's *A Soul To Claim* [Fresh! FR-746; 44.1kHz/24-bit], the impression is of the intimacy of the voice and guitar before the band kicks in, and the solidity of the whole sonic picture. Such precision is never a given with large, weighty speakers, however well they do scale and substance. However, KEF's Blades nail the 'small speakers but big' thing in scintillating fashion, and in so doing sound like no other design we can recall.

Track after track, they offered that elusive 'musicians located in space' effect, creating a sonic image free from the cabinets, with peerless focus and front-to-back depth. The sense of the venue acoustic 'breathing' around Anna Fedorova's piano on *Shaping Chopin* [Channel Classics CCS 43621; DSD128] was astonishing.

KEF's innovative speakers will also play hard and deliver all the dynamic impact one could want. Yet it's the speed, control and sheer exuberance that's most breathtaking here, making many contemporary floorstanders sound somewhat leaden by comparison.

VERDICT

The magic of KEF's Blade One Meta is the way imaging, focus and definition is written into a big sonic picture without any compromise. This speaker must be heard if you're shopping at the price… or above.

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	88.5dB / 88.3dB / 86.2dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.5ohm @ 500Hz 14.8ohm @ 19Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–57° @ 22Hz +52° @ 1.02kHz
Pair matching/Resp. error (200Hz–20kHz)	0.45dB/ ±1.2dB/±1.3dB
LF/HF extension (–6dB ref 200Hz/10kHz)	34Hz / 27.5kHz/28.5Hz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.1% / 0.06% / 0.5%
Dimensions (HWD) / **Weight** (each)	1590x363x540mm / 57kg

hi-fi news OUTSTANDING PRODUCT

Wireless-capable, floorstanding three-way active loudspeaker
Made by: GP Acoustics (UK) Ltd, Maidstone, Kent
Supplied by: GP Acoustics (UK) Ltd
Telephone: 01622 672 261
Web: www.kef.com
Price: £5999

AUDIO FILE

KEF LS60 Wireless

The first floorstander in KEF's LS series incorporates active electronics and streaming, while leveraging technologies from its LS50 Meta [*HFN* Jun '21] and Blade speakers [see p101]. So, compared to its passive LS50 bookshelf ancestor [*HFN* Jul '12], this is moving the goalposts out of the football field and into the car park.

All that's needed to get the LS60 Wireless going is a power outlet per speaker, the two then connecting to each other wirelessly (to 96kHz/24-bit) or wired (to 192kHz). Each 32kg cabinet impresses in a choice of three colour finishes, but it's the small footprint that's the real design statement. At barely 13cm wide (excluding the discreet base) it's remarkable that KEF has managed to fit a 100mm Uni-Q driver – with rear output-absorbing metamaterial disc [*HFN* Jun '21] – into the baffle.

'KEF's speakers mix subtle detail and deep, tight, glorious bass'

Front-on, this 12th-gen coaxial driver is all there is to see, as bass comes from pairs of side-firing force-cancelling woofers to complete the speaker's Blade-inspired Single Apparent Source design. To keep the cabinet slender, these woofer pairs are planted back-to-back and use differently sized, overlapping voice coils, and are driven by 500W Class D modules. The mid and tweeter units get 100W Class D and 100W Class A/B amps, respectively.

READY TO ROCK

Aided by KEF's Connect app, which adds Chromecast, AirPlay, UPnP and more to the party, the LS60 Wireless proved easy to setup – and its sound performance proved easy to admire. A playlist of dynamic, rocking content was a good fit, as it let the pairing show off an ability to render bass drums with punch and present a full-bodied midrange ideal for crunchy, overdriven guitars. Jack White's 'Taking Me Back', [*Fear Of The Dawn*; Third Man Records, 96kHz/24-bit] enjoyed well-defined bass, and drums that seemed to stop and start on a dime. And when the track shifted into a higher gear, there was no hesitation on the part of the LS60 Wireless to follow suit.

Indeed, it's tempting to hike the volume, because DSP control keeps the performance balanced and safe. Is there a hint of compression at stratospheric volumes? Possibly, although at that point angry neighbours are likely to be a more immediate concern.

Fed John Williams' *The Berlin Concert* [Deutsche Grammophon 00028948617135], KEF's active pairing demonstrated its acumen with 'The Imperial March', both in the threatening opening parts and the slow build-up in the middle of the piece. The sense of depth, especially when the French Horns resound, was thrilling.

Yet more refined, low-key songs, such as The Killers' 'West Hills' from *Pressure Machine* [Island Records, 96kHz/24-bit], display another side. Although the speakers tend towards the neutral KEF 'sound', eschewing any treble lift to cause your ears to prick, they present music in a naturalistic fashion and with a light touch.

While it's important to match a passive speaker with capable and 'sympathetic' amps, there's no such worry with the LS60 Wireless and its built-in and *entirely* complementary electronics. The success of KEF's holistic approach is revealed here in these speakers' mix of subtle detail and deep, tight, glorious bass.

VERDICT

The slim LS60 Wireless performs a lot like a compact version of the Blade(s), minus the hassle of hunting for matching hardware. Modern looks and an integrated approach might put off traditionalists, but this is true high fidelity for people who just want to enjoy their music.

RIGHT: Available in Royal Blue, Mineral White and Titanium Grey, the LS60 Wireless hosts KEF's 12-generation Uni-Q driver (with 19mm tweeter coincident with a surrounding 100mm alloy-coned midrange) plus two pairs of its Uni-Core driver arrays, first used in the KC62 subwoofer. Rear panel on the 'master' speaker hosts Toslink/coaxial digital inputs, HDMI eARC, wired and wireless Ethernet (also for connection between the speakers) and analogue line-level ins on RCAs

HI-FI NEWS SPECIFICATIONS

Pair matching/Resp. error (200Hz–20kHz)	1.9dB/ ±2.5dB/±2.3dB
LF/HF extension (–6dB ref 200Hz/10kHz)	34Hz / 50.0kHz/49.4kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.25% / 0.3% / 0.4%
Power consumption	32W (each speaker)
Dimensions (HWD, w plinth) / **Weight** (each)	1090x212x394mm / 32kg

AUDIO FILE

Bookshelf/standmount two-way loudspeaker
Made by: Monitor Audio Ltd, Rayleigh, Essex
Supplied by: Monitor Audio Ltd
Telephone: 01268 740580
Web: www.monitoraudio.com
Price: £575

hi-fi news OUTSTANDING PRODUCT

Monitor Audio Silver 50 7G

Across four ranges named after precious metals and an alloy (Platinum, Gold, Silver and Bronze), Monitor Audio sells 16 different standmount/bookshelf and floorstanding models, stretching in price from £285 to £11,000. This places the Silver 50 7G tested here, a compact two-way priced at £575, in the company's (crowded) lower mid-range.

Although the baby model in the seventh-gen Silver line, the 50 7G enjoys much of the technologies of its series siblings, including a new version of MA's C-CAM 'Gold' dome tweeter, with a revised waveguide and dispersion control pattern cut into its flush-fit grille. Further out-of-sight changes are an upgraded magnet design, a new compression ring claimed to better flatten its response, and improved damping and venting of the rear chamber.

'John Williams' score jumped out with a thrilling brass fanfare'

Below the tweeter is a freshly minted 135mm RST II C-CAM bass/mid driver, with a dimpled profile to both improve its physical structure and control resonant behaviour. Both driver assemblies are mounted into the cabinet via bolt-through fixings, visible on the rear above a HiVe II bass reflex port with MA's familiar rifled edging.

A key part of the Silver series' 7G overhaul is a stylistic refresh. There's not *that* much of a difference compared to the older 6G models, but the changes that have been made are welcome. The driver surrounds are now better blended/colour-matched with the cabinet, and the magnetic grilles are now rounded only at the bottom – a very minor detail but one that results in a neater look. Cabinet edges are smoothed, and the overall feel is of a conventional compact speaker given the deluxe treatment.

As you might guess given the 50 7G's price, Monitor Audio claims a user-friendly nominal impedance of 8ohm and a not unrealistic 86dB sensitivity, resulting in an on-paper spec that suggests a reasonably easy-to-drive loudspeaker well placed to work with a wide range of affordable amplifiers.

BREAKING FREE

The 50 7G is a chip off the Monitor Audio block – the brand has been selling sultry looking compact bookshelf speakers for decades now, and clearly knows what it's doing. These two-way cabinets punch well above their weight, which brings a scale and sense of depth you might not think possible given the size of enclosure and bass/mid driver. Of course, said driver has a lot to do, and the 50 7G *can* stumble with aspects of its midrange delivery. Overall, though, this sound is fun but still grown-up – able to make even the most lo-fi parts of your collection sound listenable, yet ripe for better recorded material.

Its tuning aims more for warmth than utter transparency, which isn't a deal-breaker given the price. The bounce and snap of 'I Want To Break Free' [*Queen: Greatest Hits II*; Parlophone CDPMTV 2] demanded the volume be turned up – here the synthesiser intro grew in size without losing any of its focus just as the vocal track was hived smartly off from the meaty rhythm section.

Bass is even-handed and well-integrated, though some experimentation with placement is warranted to make sure you're not overdoing the boundary gain. Otherwise these cabinets prove pretty unfussy, delivering strong central images within a wide and relatively deep soundstage.

The 50 7G is also a dab hand at conveying the physicality of musical instruments, particularly with a quality source. John Williams' score for *Star Wars: The Force Awakens* [Walt Disney Records] jumped from the loudspeakers with a thrilling fanfare of trombone and horn. This had a throaty edge and generous weight, followed by silkier strings. It was a performance of real dynamism from compact speakers with a real-world asking price.

ABOVE: Available in Satin White, Gloss Black, Black Oak, Walnut and Ash finishes, the Silver 50 hosts a 135mm C-CAM bass/mid driver and 25mm C-CAM 'Gold' dome tweeter with 'UD Waveguide II'

VERDICT

A 'bookshelf' speaker with an install-me-anywhere attitude, the 50 7G is a perfect partner for a bijou amp and easy to drive. The sound is rich, responsive and unfatiguing, and joined by super-smart styling.

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.0dB / 86.6dB / 84.6dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.9ohm @ 248Hz 21.4ohm @ 101Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–48° @ 125Hz +46° @ 805Hz
Pair matching/Resp. error (200Hz–20kHz)	0.4dB/ ±2.3dB/±2.2dB
LF/HF extension (–6dB ref 200Hz/10kHz)	54Hz / 23.2kHz/23.7kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.2% / 0.4% / 0.3%
Dimensions (HWD) / **Weight** (each)	282x165x272mm / 5.6kg

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AUDIO FILE

Five driver, three-way floorstanding speaker with active bass
Manufactured by: Paradigm Electronics Inc., Canada
Supplied by: Pulse Cinemas Ltd, Essex, UK
Telephone: 01279 647 039
Web: www.paradigm.com; www.pulsecinemas.com
Price: £8600

hi-fi news OUTSTANDING PRODUCT

Paradigm Founder 120H

At first glance, you may think 'we've been here before', as Paradigm's Founder 120H looks very much like the £5400 100F model [*HFN* Jul '21]. Yet there's more than enough going on with this flagship design to justify the price differential, including larger 'Carbon-X' bass drivers, a bigger cabinet, and something alluded to by the suffix on the model number.

The 'H' signifies this speaker's hybrid of passive mid/treble with integrated active drive for the bass section below. Actually, there's even more to it than that, for alongside the 1000W of bass power comes Anthem Room Correction (ARC) to fine-tune in-room LF response. A measuring mic, small stand and USB cables are supplied, while the software is a free download.

'Straight and to the point, they revelled in the tone of the guitar'

Once installed on Paradigm's 'Advanced Shock-Mount Isolation' outriggers, this is an elegant speaker, tapering from bottom to top, and with an angled crease running diagonally across the side panel. This is no mere styling foible as it echoes the internal 'Cascade Fusion Brace', running from top front to bottom rear, combining with horizontal partitions to divide the internal volume up into a series of compartments of irregular shape.

CANADIAN CULTURE

Paradigm quotes a 92dB+ sensitivity and nominal 8ohm impedance for the 120H, but we took no chances, driving them with 350W Classé Delta Mono power amps [*HFN* Jun '21]. The set-up was a felicitous one, the speed and slam of the Canadian-designed/Japanese-made amps proving the perfect foil for its compatriot speakers from Ontario.

While far from the largest models to have graced our room, the 120Hs did a great job of both filling the space with sound and conveying hugely exciting and involving music. Anna Fedorova's *Shaping Chopin* recital [Channel Classics CCS 43621; DSD128] rewarded with a combination of beautifully realised instrumental timbre and a good sense of the concert hall acoustic.

The 120Hs also showed the same directness of instrumental communication with 'White Rock Beer... 8 Cents' from guitarist Robben Ford's *Pure* [Ear Music 0216930EMU]. Straight and to the point, they revelled in the tone of Ford's solo guitar, while displaying excellent drive in the accompanying band, underpinned by reliably extended, yet tight, bass.

The Founder 120Hs just get on with the important stuff of musical involvement. Give them the raw energy of Ronnie Wood's *Mr Luck – A Tribute To Jimmy Reed: Live At The Royal Albert Hall* [BMG 538682242], and the exuberance of both the performances and the live sound is hard to ignore. The sound is rough, dirty and bluesy – as it should be – and Paradigm's 120Hs deliver it with maximum force, and no shortage of swagger. Yet switch to the softer 'Precious Time' from Paul Carrack's *One On One* [Carrack UK], and these big speakers present it with a lightness of touch that belies the presence of those 215mm Carbon-X woofers.

VERDICT

The Founder 120H is an awful lot of speaker for the money, whether in terms of technology, finish quality or sonic ability – where active bass is both powerful and exceptionally well integrated. These speakers make for a compelling listen.

ABOVE: Tapered cabinet houses five drivers – a 25mm AL-MAC tweeter, 150mm AL-MAG mid and a trio of 215mm 'Carbon-X' woofers driven, below 300Hz, via 1kW of built-in amplification. USB port enables Anthem's Room Correction Technology

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	93.3dB / 91.1dB / 88.9dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.5ohm @ 630Hz 100ohm @ 20Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–85° @ 28Hz +37° @ 1.4kHz
Pair matching/Resp. error (200Hz–20kHz)	5.7dB/ ±6.0dB/±5.1dB
LF/HF extension (–6dB ref 200Hz/10kHz)	18Hz / 53.3kHz/50.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.2% / 0.25% / 0.55%
Dimensions (HWD) / **Weight** (each)	1153x354x441mm / 42kg

hi-fi news OUTSTANDING PRODUCT

Four-way, seven-driver floorstanding loudspeaker
Made by: Perlisten Audio, Verona, WI, USA
Supplied by: Karma-AV Ltd, York
Telephone: 01423 358846
Web: www.perlistenaudio.com; www.karma-av.co.uk
Prices: £16,000 (£18,300 for SE/High Gloss Ebony)

AUDIO FILE

Perlisten S7t SE

An almost 1.3m-tall, seven-driver tower weighing in at 55kg, Perlisten's S7t puts us firmly in the foothills of big and heavy territory, with a £16,000 price tag to go with it. This is certainly not pocket-change, but factor in the loudspeaker's proprietary technologies, excellent build and finish, and the obvious engineering energy that's been put into it, and it starts to make sense.

A new company out of Verona, Wisconsin, Perlisten is arriving all guns blazing with a portfolio of loudspeakers and subwoofers across two ranges. But it's the S7t that's the flagship, and it looks the part, too, with four 180mm woofers gracing the curved front baffle.

These sandwich a central mid-tweeter-mid array, featuring carbon-ply domes either side of a beryllium dome tweeter, set into a dished waveguide. Perlisten calls this its Directivity Pattern Control (DPC), and acoustic modelling software has been used to establish the dome size/shape, and the profile of the waveguide, to optimise vertical and horizontal dispersion, in conjunction with a bespoke – and complex – crossover network.

'Volume up, dynamic flow and leading-edge ability was thrilling'

Sensitivity is rated at 92.2dB, and low-frequency reach down to 32Hz or 22Hz (re. –10dB) – two figures because vents near the bottom of the S7t enclosure are linked to a pair of internal Helmholtz tubes that can be sealed or left open for a vented box design.

BRACE FOR IMPACT

The presence of four woofers (the outer pair working below 500Hz) might suggest a preposterous level of bass, and, perhaps, a degree of boisterousness alongside the fidelity you would demand at this price. Instead, the S7t offers astonishing resolution with a soundstage you want to dive into, and a way with the low-end that favours control, speed and impact. Oh, and this speaker will happily go very loud, with dynamic élan too.

Listening to Ali Farka Touré and Ry Cooder's 'Diaraby' [*Talking Timbuktu*; World Circuit WCD 040] was an eye-opener, as the various instruments, including Touré's vocal, semi-acoustic bass and slide guitar, were drawn in a 3D space. Hand percussion roamed the rear as different elements emerged from points high above. It was expansive, layered and popping with detail.

Volume up, the S7t's dynamic flow and leading-edge ability is thrilling, but reduce the level and the sound is arguably less exciting. Bass weight and tone is there, as is the unfatiguing presentation of upper frequencies, but there's a slight loss of snap. Certainly, a strong part of this speaker's appeal is its power handling and controlled energy when pushed – and push we did with the electronica of Koan Sound's 'Funkblaster' [OWSLA-OWS004]. The S7t flexed its muscles here, maintaining rich, pure mid tones while its tweeter punched out high frequencies, and hard-hitting, multi-layered bass was served without bloom or overhang.

Nor did it put a foot wrong with the memorable bassline in 'Billie Jean' [*Thriller*; CDEPC 85930], while Hans Zimmer's 'Cornfield Chase' [*Interstellar OST*; WaterTower Music; 44.1kHz/24-bit], where organ and strings are joined by thunderous bass details, was served up in style. This soundtrack instrumental is cinematic to the extreme, and it left us reeling. The S7t seems to understand exactly what a piece of music is calling for.

VERDICT

Perlisten has hit a home run with its flagship floorstander. Undoubtedly a technically clever loudspeaker, it's been engineered to one simple goal – making great-sounding music.

RIGHT: Mounted into Perlisten's CNC-machined HDF baffle is its 'DPC array' comprising a 28mm beryllium tweeter and upper/lower 28mm TPCD (thin-ply carbon diaphragm) domes. Custom TPCD bass drivers are configured for either vented or sealed-box alignment

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	91.6dB / 91.4dB / 89.5dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	2.84ohm @ 15.2kHz 17.5ohm @ 62Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–50° @ 80Hz +59° @ 20kHz
Pair matching/Resp. error (200Hz–20kHz)	0.7dB/ ±2.4dB/±2.1dB
LF/HF extension (–6dB ref 200Hz/10kHz)	49Hz / 30.6kHz/27.6kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.14% / 0.07% / 0.6%
Dimensions (HWD) / **Weight** (each)	1295x240x400mm / 56kg

AUDIO FILE

Floorstanding three-way ABR-loaded loudspeaker
Made by: PS Audio, Boulder, Colorado, USA
Supplied by: Signature Audio Systems, Kent, UK
Telephone: 07738 007776
Web: www.psaudio.com; www.signaturesystems.co.uk
Price: £28,000

hi-fi news OUTSTANDING PRODUCT

PS Audio aspen FR30

This long-awaited debut loudspeaker from PS Audio is big at almost 1.54m, and heavy at 104.5kg each including base, but relatively slender and hardly 'room-dominating'. And, at £28,000, it's also sensibly priced, at least in high-end hi-fi terms.

Available in Pearl White or Sable Black finish, the aspen FR30 is a two-part speaker, fitting together via a mount that also allows some adjustment if required. The upper section contains midrange and dual treble drivers (one to the rear to control perceived ambient 'space') in a sealed cabinet. The lower part, on a slender stand, houses four bass drivers and four side-firing ABRs.

Everything has been custom-designed for this speaker, from the planar magnetic treble and midrange units, to the 200mm aluminium woofers in cast alloy chassis driven by massive motors weighing 5.5kg. The main MDF enclosure, fronted by a fibreglass resin baffle with integrated waveguides for the HF drivers, is extensively braced to stiffen the cabinet and 'compartmentalise' the internal volume, while the crossover is a two-part design, with separate mid/tweeter and woofer networks. At the rear, a 'Near/Far' facility adjusts the response at the baffle step, offered as a correction if the loudspeaker sounds too thick or full when placed near a rear wall.

> 'There were musical discoveries to be had on an open, airy stage'

NEW SENSATION

To cut to the chase, the aspen FR30 is one of the high-end bargains of the moment, making some much pricier speakers seem just a little bit silly. Given plenty of grunt to meet the 100-600W recommendation, it's immediately compelling in its combination of power, resolution and lack of effort in making music.

Rarely does a loudspeaker 'hang together' so well that it's impossible to single out aspects for acclaim or criticism. There were musical discoveries to be had on an open, fine-focused and airy soundstage, underpinned by bass not just profoundly extended, but also taut and capable of devastating slam and impact. Yes's 'Roundabout' [*Fragile*, Elektra WPCR-14167; DSD64] carried sensational attack, drive and sheer low-end power, while all the noodling above was ruthlessly, thrillingly revealed.

Breathtaking at high levels, the aspen FR30 is just as inspiring with delicate pieces, such as the lush, fluid interplay between soloist and orchestra on Marc Coppey's *French Cello* recital [Audite 97802, 96kHz/24-bit], or the gentle lyricism of Mark Knopfler's 'The Trawlerman's Song' [*The Studio Albums 1996-2007*; UMG 0602435817088], where the focus was entirely on the voice and instrumentation.

A favourite test track, The Kansas City Symphony recording of Britten's 'Young Person's Guide… [Reference Recordings RR-120SACD], was as dramatic and detailed as we've ever heard. The loudspeaker easily conveyed the sweeping strings, skittering woodwind and metallic tambourine rattle, before gathering all its considerable resources for the effortless transition into the great fugue at the end. It's all delicious stuff – and addictive.

VERDICT

The aspen FR30 is nothing short of remarkable, with a build and finish as immaculate as the sound. This speaker sets new standards of focus, openness, weight and control at this price and well above.

ABOVE: Top cabinet isolates the 255mm planar magnetic mid and 64mm tweeter while the lower bass cabinet houses a combination of four 200mm alloy-coned woofers supplemented by pairs of 255mm ABRs on each side. Two flush-fit grilles attach magnetically

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	88.2dB / 88.5dB / 86.8dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.6ohm @ 340Hz 9.5ohm @ 21Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–36° @ 24Hz +32° @ 20kHz
Pair matching/Resp. error (200Hz–20kHz)	1.4dB/ ±4.3dB/±3.8dB
LF/HF extension (–6dB ref 200Hz/10kHz)	24Hz / 31.6kHz/31.6kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.11% / 0.07% / 0.6%
Dimensions (HWD) / **Weight** (each)	1537x406x654mm/105kg

hi-fi news HIGHLY COMMENDED

Two-way standmount loudspeaker
Made by: Simaudio Ltd, Quebec, Canada
Supplied by: Renaissance Audio, Scotland
Telephone: 0131 555 3922
Web: www.simaudio.com; www.renaissanceaudio.co.uk
Price: £2650 (£495 for the 'Stand 22' stands)

AUDIO FILE

Simaudio MOON Voice 22

Back in 2016, Simaudio added the MOON ACE to its range of pre, power and integrated amplifiers. A slimline machine with analogue, digital and network connectivity, the ACE clearly warranted 'just-add-speakers' status. The problem was Simaudio didn't have any, so rather than hand sales to other companies, it has ventured into the world of loudspeaker design and manufacture for the first time.

The result is the MOON Voice 22, a compact bookshelf speaker that makes a good 'size-match' for the MOON ACE, or similarly slender amplifier. Priced at £2650 in either high gloss black or white finishes, it partners a 29mm soft dome tweeter with 155mm mineral-loaded polypropylene bass/mid, with the former in a custom waveguide that Simaudio says has allowed it to set the crossover at a relatively low 1.5kHz.

There are purpose-built £495 stands to give the speakers a lift, but the Voice 22 also boasts something called a 'Hover Base' – a detachable rubberised (Poron) layer underneath that supports the box when placed in a bookshelf or cabinet. It gives the vague impression that the speakers are 'floating', provides a degree of isolation, and prevents furniture surfaces from being scratched.

'An insightful, detailed sound that lives up to the "Voice" moniker'

The cabinet's rear-facing bass reflex port can be resistively-loaded with supplied soft-foam plugs if the speaker cannot be accommodated in its optimal position. Simaudio recommends the Voice 22s are toed-in with clearance from walls 'to at least twice the dimensions of the cabinet'. To all intents and purposes this means a generous 60cm from the rear boundary.

There's apparently quite a lot going on inside regards resonance control, the manufacturer saying the 'mechanical characteristics of the enclosure are carefully engineered to be free of vibrations'. This refers to Simaudio's bracing and CGD (Curved Groove Damping), which features sculpted grooves cut, in semi-random fashion, into the inner walls of the MDF enclosure and filled with a damping polymer.

FINE FOCUS

This standmount has considerable flair, most notably when it comes to bass, but also treble details, which it presents in a subtle-but-always-there fashion. And while it has weight, it doesn't throw its weight around – there's mostly a neutral and balanced feel to the sound. This means some might find the Voice 22 a little unexciting, but also means you get an untempered view of the music at hand.

The bass output benefits from sensible positioning, as it dominates the performance if you've given that reflex-loaded woofer too much of a boundary boost. Restricting the ports yields an improvement, but we still preferred the Voice 22s unsealed and placed well into the room. The soundstage is open and three-dimensional here, allowing Deep Purple's 'Perfect Strangers' [Polydor 546 045-2] to play with both heft and focus.

Staccato instrumentation, punchy rhythms, and low octave elements are all in the MOON Voice 22's wheelhouse. Listening to Lynyrd Skynyrd's 'Railroad Song' [*Nuthin' Fancy*; MCA Records 112 024-2] with the volume up, you get that happy confusion of an impactful sound emerging from deceptively small boxes.

Time and again, though, it was the speaker's controlled, revealing nature that shone brightest. There was no sign of a nasty edge or overt smoothing to treble, and the two cabinets meshed to create a stage with a precise central image. It's an insightful and detailed sound that lives up to the 'Voice' moniker.

ABOVE: A 29mm soft dome tweeter, with waveguide, is paired with a 155mm mineral-loaded polypropylene bass/mid driver. Proprietary CGD (Curved Groove Damping) aims to control cabinet modes while the 'hover base' can be removed for stand mounting

VERDICT

This Voice 22's unflashy style carries over into its sound. This isn't a model that seeks to grab attention via warmth or treble attack – on the menu instead is refined musicality, with clarity and control down to a low-end that's surprisingly potent.

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	90.2dB / 88.4dB / 86.0dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.5ohm @ 185Hz 28ohm @ 76Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–57° @ 88Hz +54° @ 21Hz
Pair matching/Resp. error (200Hz–20kHz)	0.9dB/ ±3.1dB/±3.0dB
LF/HF extension (–6dB ref 200Hz/10kHz)	47Hz / 41.1kHz/40.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.55% / 0.09% / 0.7%
Dimensions (HWD) / **Weight** (each)	350x200x290mm / 11kg

AUDIO FILE

Two-way wall-mounted loudspeaker
Made by: System Audio A/S, Denmark
Supplied by: Karma-AV Ltd, York
Telephone: 01423 358846
Web: www.system-audio.com; www.karma-av.co.uk
Price: £2100

hi-finews HIGHLY COMMENDED

System Audio Legend 7.2

If you're looking at System Audio's Legend 7.2 and thinking 'Why would I want to hang a loudspeaker on my wall?' then it's probably not the model for you. But in some environments, where floor space is limited, an on-wall speaker might be the difference between hi-fi and no hi-fi.

The Legend 7.2 is priced at £1050 'per box' as befits an 'LCR' model, intended to be used for the front left, right and centre channels in an AV system, or as a stereo pair in an above entry-level hi-fi set-up. Because of this, its design allows it to be positioned both vertically and horizontally: on the rear are multiple keyhole points, plus inset cable grooves, for a flush fit in up to four different directions.

This positioning flexibility also informs the asymmetrical layout of the drivers. The '7.2's 25mm dome tweeter, sat within an acoustic lens, isn't located dead centre, but towards one edge of the baffle, enabling it to be closer to 'ear height' when mounted horizontally below a projector screen. And when used as a stereo pair, this gives you the choice of having the tweeter 'in' from the speaker's pair of 130mm bass/mid units, or outside.

> 'The clean, fulsome presence of the bass guitar was a treat'

Style-wise, the Legend 7.2 doesn't have *objet d'art* aspirations – it aims for discretion instead. Finish options are black or white, each version supplied with colour-matched magnetic grilles. Opt for white and keep the grilles on, and – in a room with white walls – you'll come as close to an invisible speaker as it's possible to get.

This is the only System Audio on-wall model with an upgrade path to active 'Silverback' status. For £650 per speaker, this replaces the passive crossover with a module comprising a DSP crossover and DAC, three Class D amplifiers, and a wireless WiSA receiver. The 4mm terminals are also substituted for a balanced XLR input, plus USB socket for firmware updates and uploading of new DSP profiles.

WALL OF SOUND

Our first taste of System Audio was the Legend 40 floorstander [*HFN* Aug '20], a largely neutral-sounding three-way speaker that would leap into action with the dynamic ups and downs of music. The Legend 7.2 shares this approach, delivering big, dramatic soundstages if given a good amount of power, and not softening treble edges. So it feels like part of the wider family, even while its sealed, wall-mountable cabinet does invoke some performance differences.

Joe Bonamassa's sparse *Blues Deluxe* [Provogue PRD 7158 2] features the guitarist 'wailing' above a 12-bar bassline that holds this whole piece together. This should be duly prominent in the mix, and here the clean, fulsome bass guitar was a treat, the speaker clearly employing its boundary positioning to give a boost to a slim, sealed cabinet with internal volume akin to a compact standmount.

Bonamassa's solo was lifted from a well-spaced and large-sounding backing band, the Legend 7.2 imaging impressively despite there being no scope to fine-tune with toe-in or bring the speakers 'into the room'. And with John Williams' expansive 'Raiders March' [*John Williams In Vienna*; Deutsche Grammophon 483 9045], our pairing conjured a CinemaScope image of Harrison Ford, fedora on head and bullwhip in hand.

Meanwhile, the speaker's mid and treble handling helped shine a revealing light on instrumental textures and vocal nuances, be they the quivering steel string guitar in Hans Theessink//Terry Evans' 'Gotta Keep Moving' [*Visions*, Blue Groove; CD] or the reedy sax and powerful vocals of Nina Simone's *I Put A Spell On You* [Verve Music Group; 192kHz/24-bit]. This on-wall model definitely has a musical side to its direct, powerful demeanour.

ABOVE: A pair of 130mm carbon-fibre coned bass/mid units cross over at 2.5kHz to a 25mm soft-dome tweeter. The MDF cabinet is available in both white and black finishes

VERDICT

This easy-to-fit speaker packs a punch with bass and percussion, grabs hold of musical details and offers an output that belies its size. Your vacuum cleaner will love it.

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	86.2dB / 87.1dB / 85.8dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.28ohm @ 155Hz 31.5ohm @ 95Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–59° @ 1.82kHz +52° @ 505Hz
Pair matching/Resp. error (200Hz–20kHz)	1.2dB/ ±4.9dB/±5.0dB
LF/HF extension (–6dB ref 200Hz/10kHz)	75Hz / 38.2kHz/50.4kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.2% / 0.11% / 0.35%
Dimensions (HWD) / **Weight** (each)	470x286x154mm / 9.3kg

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AUDIO FILE

Four-way floorstanding loudspeaker
Made by: Wilson Audio Specialties, Utah, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.wilsonaudio.com; www.absolutesounds.com
Price: £139,000

hi-fi news OUTSTANDING PRODUCT

Wilson Audio Alexx V

As of 2022, the Alexx V sits in the upper half of a range which starts with single-piece speakers such as the Yvette [*HFN* Feb '17]. A successor to the Alexx [*HFN* Nov '16], it's only an inch deeper and taller, so fills a space of 1610x400x680mm (hwd). Each cabinet weighs 227kg, hosts one 10.5in and one 12.5in woofer in the lower section, and three driver modules (7in midrange, 1in tweeter and 5.75in midrange at the top) in its upper 'open-gantry' body.

Trickle-down benefits remain a firm part of the Wilson procedure, and many of the Alexx V upgrades come from the WAMM Master Chronosonic and Chronosonic XVX. Offered back to the gene pool is the Alexx V's new Acoustic Diode spike system, and convergent Synergy Carbon (CSC) dome tweeter with 3D-printed, carbon-fibre rear-wave chamber. A full list of what distinguishes the Alexx V would run to several pages, the 'V' here not a Roman numeral but the designation of its new cabinet material. Suffice to say, Alexx-to-Alexx V illustrates what Wilson Audio has been up to over the past five years.

'It rocks like you will not believe, but never lacks composure'

Setup, including fine-tuning of the acoustic centres and propagation delay of the mixed-size midrange-tweeter-midrange array, is a minimum two-person task by an experienced Wilson dealer, and typically requires six hours.

SMART ALEXX

In PM's listening room using a Constellation Centaur II 500 amp [*HFN* Dec '19], and with Kodō's *Warabe* [Sony SRCL4671] in play, the Alexx V delivered revelatory textures, air and bass extension, thanks to a total lack of cabinet-induced coloration or dissonant resonances. Drums were graced with a presence and authenticity that delivered frisson after frisson of uncanny realism. These massive towers simply... disappeared.

Yes, such panel-like transparency and openness can be found in the best of that genre, but the Alexx V's bass extension and weight? The attack, and smooth consistent decay, of each note? Whether it's the drivers themselves, the enclosure material, the crossover or, more likely, a combination of all three, the speaker blended all of these desired properties into a perfectly convincing whole.

With up-tempo music, the Alexx V simply got on with the job, handling decibel counts that would have destroyed others, yet sacrificing none of the finesse we'd heard via the Kodō CD. So this speaker, as gracious and refined as it was designed to be, is deliciously a Jekyll-and-Hyde affair. It rocks like you will not believe – whereas Wilson's original WAMM probably thought honky-tonk piano to be shamelessly racy – but never lacks composure.

Moreover, the Alexx V flawlessly reproduces the frequency extremes, the softest and the loudest sounds, and crafts a three-dimensional soundstage. And 'subtle' isn't enough of a description to help you appreciate the manner in which it reproduces nuances in voices!

VERDICT

The Alexx V represents the utopian Wilson Audio midpoint between the WATT's focus and scale of the Chronosonic XVX. This enormous system delivers the soundstage and presence expected of a coffin-sized construct, yet produces unrivalled detail and precision. One of the best loudspeakers we've ever heard...

RIGHT: Drawing on the XVX and WAMM Master Chronosonic, the Alexx V combines a new 1in CSC tweeter with 7in and 5.75in mids in a highly adjustable cabinet system. The 10.5in and 12.5in woofers are housed in a separate cabinet

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	92.8dB / 91.3dB / 89.1dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	1.91ohm @ 249Hz 8.97ohm @ 37Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	–52° @ 47Hz +40° @ 5kHz
Pair matching/Resp. error (200Hz–20kHz)	0.9dB/ ±3.6dB/±3.3dB
LF/HF extension (–6dB ref 200Hz/10kHz)	27Hz / 43.4kHz/43.3kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.3% / 0.35% / 0.3%
Dimensions (HWD) / **Weight** (each)	1610x400x680mm / 227kg

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AUDIO FILE

Active subwoofer. Amplifier rated at 500W/4ohm
Made by: Wilson Audio Specialties, Utah, USA
Supplied by: Absolute Sounds Ltd
Telephone: 0208 971 3909
Web: www.wilsonaudio.com; www.absolutesounds.com
Price: £9500

hi-fi news OUTSTANDING PRODUCT

Wilson Audio Lōkē

This £9500 subwoofer's moniker either shows that it's the baby sister to Wilson Audio's gigantic Thor's Hammer model, or it's a play on 'Low Key'. Regardless, don't let the name fool you – the Lōkē weighs 50kg and occupies a space of 530x352x552mm (hwd) with grille, making it large enough to require forethought about its location. Handy, then, that it comes with castors to make the testing of trial positions an easy task, to be replaced after by Wilson's proprietary 'Spike & Diode' feet for rock-solid contact with the floor.

The Lōkē enclosure, with baffle and walls of X-material, is quite handsome, especially if finished in one of the WilsonGloss colours. Facing front are a slot port and 10in woofer with rubber surround and paper-pulp cone – a new driver in the Wilson Audio lineup. Powering it is a 500W Class D amplifier, part of a module sourced from Dayton Audio that contains all controls and connections. Changes to certain components and the DSP functions were made to meet Wilson's requirements for a small, high-performance, rugged subwoofer with reliable amplification that was not cost prohibitive. (That, of course, is relative, as £9500 is hardly chicken-feed.)

> 'The resulting mass of bottom octaves was almost a haptic event'

Connection is straightforward, via XLRs or RCAs that can be selected as either line- or high-level, the latter allowing the sub to be connected in parallel with the cables running your loudspeakers.

The one-line LCD display and click/turn navigation rotary is a clunky, time-consuming method of accessing the Lōkē's plethora of nested functions, but there's no denying the versatility of the sub's fine-tuning. It offers adjustment in single Hz and to fractions of a dB across menu options that include a high-pass filter for the line output and low-pass filter for the internal Class D amp/driver; a 0-10msec variable delay on the line output; variable 0-180° phase control; and two parametric eq. menus operating over 30-125Hz. This is a lot to absorb on first acquaintance but it also inspires confidence in knowing you'll be able to 'blend' the subwoofer into your listening room and main speaker system.

LOVE HERTZ

Our listening combined the Lōkē subwoofer with Wilson Audio's floorstanding Sasha DAWs [*HFN* Mar '19]. This at first seemed ludicrous as the latter fill a 12x18ft room perfectly, but with the nether reaches of *Your Guy Lombardo Medley Vols 1 And 2* [Capitol Y2T 2239] the already-majestic scale of these Wilson staples was audibly enhanced by a sense of weight.

One needs to set up this subwoofer with not just care, but restraint, because it is so easy to succumb to, or be charmed by, the sudden onslaught of excess bass. This is even more critical a requirement if the Lōkē is used with smaller speakers that actually need the support; Sasha DAWs really do not, but BBC LS3/5As do...

Past experience of dedicated subs for LS3/5As was enjoyable [see *HFN* Oct '21] but many still prefer to listen to them *au naturel*. But what the heck: the Lōkē was set to a 70Hz crossover with Falcon Acoustics' 'Gold Label' LS3/5As [*HFN* Dec '18], its output level turned down, and fed The J Geils Band's eponymous, peerless debut album [Speakers Corner/Atlantic SD8275], which has a wonderful three-pronged bass attack: Seth Justman's Hammond organ on top of Danny Klein's bass guitar and Stephen Bladd's percussion.

The result was a mass of bottom octaves that was almost a haptic event. When a fellow household member says, 'Have you changed the system? I could feel the bass', then something serious is afoot. The liberation of the LS3/5As was readily apparent, but it wasn't an increase in detail or information, because these loudspeakers already have those down pat. No, it was like jabbing them with a syringe full of steroids. This box rocks. Call it 'Thor's Ball-Peen Hammer'.

ABOVE: A 250mm (10in) long-throw woofer is reflex-loaded via a front-firing slot port. Rear panel and OEM electronics are based on the 500W Dayton Audio SPA500DSP module with DSP menu and blue display. Single-ended (RCA) and high/low balanced (XLR) inputs are joined by filtered line outputs

VERDICT

Wilson Audio's Lōkē turned out to be less brand-specific and more universal than the manufacturer may have intended. The large Sasha DAWs barely exploited it, so TuneTot [*HFN* Nov '18] owners craving more bass are the most likely to benefit. And the transformation with LS3/5As was near-miraculous!

HI-FI NEWS SPECIFICATIONS

LF extension (–6dB ref 100Hz)	<15Hz
THD 40Hz/80Hz/120Hz (for 90dB SPL/1m)	~9% / 0.07% / 0.2%
Power consumption (Idle/Rated output)	8W / 630W
Dimensions (HWD) / **Weight**	527x352x552mm / 50kg

hi-fi news EDITOR'S CHOICE

Passive USB conditioner/RF filter
Made by: AudioQuest, California
Supplied by: AudioQuest UK
Telephone: 01249 848 873
Web: www.audioquest.com
Price: £59

AUDIO FILE

AudioQuest JitterBug FMJ

As we described in our review of AudioQuest's original JitterBug [*HFN* Oct '15], this little serial plug-in is not a re-clocker for digital datastreams, but rather a purely passive device (drawing no power from the USB hub) that provides transformer-isolation and RF filtering of both the 5V USB 'VBUS' and its differential data lines. The promise, according to AQ, goes something like this: 'the dual-discrete noise-dissipation circuits reduce internally generated RF noise for improved streaming audio, [reducing] jitter and packet errors'.

'It's best described as adding a little extra "bite" to the sound'

Today the JitterBug is available as the £59 JitterBug FMJ – still a USB-A-to-USB-A device, with a male plug on one end and a female on the other, but the case is now an alloy sleeve – hence Full Metal Jacket. There's a rubber cap too, heavily loaded with carbon for further screening, provided to cover the output socket if the JitterBug FMJ is plugged into an unused USB port on the same or adjacent hub.

LEFT: Packaging for AudioQuest's JitterBug FMJ is lavish and includes a comprehensive promise of its abilities whether used in serial or parallel mode

Ordinarily, the JitterBug FMJ will be used as an in-line filter between a USB music server (PC/Mac) and your choice of outboard DAC. Of course it's tempting to discount the potential of such a device, particularly if there's no discernible difference in basic harmonic distortion or noise from the DAC under test. And, indeed, most of the time there isn't because the 'Bug' is not altering the data as much as the RF environment – the ambient fog – that it's slogging through.

Moreover, while the 'dual filtering' of both VBUS and USB datalines is intended to remove spurious RF, particularly from the latter, this low-pass filter will necessarily influence the response and waveshape of the data signal. How this impacts on the performance of the USB sink (receiver) and downstream DAC will necessarily vary device by device.

NIPPED BY THE BUG

The proof is in the listening and while AudioQuest's own DragonFly DACs are obvious partners, it's worth noting that the Cobalt model [*HFN* Oct '19] already includes similar filtering. However, having used an original JitterBug on and off in our server-based system for years, it still brings marginal, but worthwhile, gains in clarity.

The FMJ variant also brings marginal improvements to the party but with a small bonus, probably best described as a little extra 'bite' to the sound, and a slight sharpening in its resolution of any recorded ambience. For example, on the Gesualdo Six's festive *Christmas* [Hyperion CDA68299], there's a slightly greater sense of the chapel acoustic around the performers, while the intimacy of the Rembrandt Trio's *A Wind Invisible Sweeps Us Through The World* [Just Listen Records JL024] wraps itself around the listener with a hint more conviction and warmth.

The effects are less striking with busier, more commercial recordings, which tend to cover up the effects of such noise, and they'll also vary between digital sources and DACs. You may very well discover the JitterBug FMJ doing more when used with a slightly tired PC/Mac feeding a budget DAC than in a polished, high-end set-up.

ABOVE: Equipped with a USB-A socket at one end and plug on the other, the alloy-clad JitterBug FMJ inserts between any USB audio output – whether a dedicated music server or host computer – and partnering USB DAC

VERDICT

The JitterBug FMJ has the capacity to improve the sound of your USB DAC, especially in busy wireless environments, and while the gains are subtle, they're typically worth having. The effect necessarily varies with the partnering equipment but, at the price, there's very little to lose in giving the 'FMJ' a try in a USB-based audio system.

HI-FI NEWS SPECIFICATIONS

USB Risetime (without/with JB)	22.0nsec / 14.8nsec
Digital jitter (without/with JB)	223psec / 150psec
Dimensions (WHD)	19x13x50mm

AUDIO FILE

Factory-terminated interconnect cables
Made by: AudioQuest, California
Supplied by: AudioQuest UK
Telephone: 01249 848 873
Web: www.audioquest.com
Price: £3400/£2500 (1m stereo set, terminated in XLRs/RCAs)

hi-fi news EDITOR'S CHOICE

AudioQuest ThunderBird

For over 40 years AudioQuest's (AQ) founder and guiding light, William 'Bill' Low, has been on a journey of discovery, exploring the properties of different conductors, dielectrics and geometries to not only offer as transparent an 'analogue link' as possible but also isolate that link from an increasingly hostile RF/EMI-strewn environment. Bill also has a flair for the dramatic, invoking the spirit of the 'ThunderBird' in this entry-level Mythical Creature interconnect.

'Powerful-sounding drums prove there's real fire in its belly'

Prices start at £2500 for a 1m stereo set with silver-plated RCAs or £3400 for the balanced XLR version tested here. The top-end Firebird and Dragon interconnects trade the ThunderBird's solid 'Perfect Surface Copper+' conductors for 'Perfect Surface Silver' at £4700 and £8100 for 1m RCA-terminated lengths, respectively, but AudioQuest's underlying 'ZERO-Tech' cable theory remains the same.

ABOVE: Solid-core copper signal conductors sit within air-filled (white) FEP tubes, surrounded by a foil and carbon/graphene-rich polymer screen

Low dielectric loss is sought by surrounding the signal cores with air within FEP tubes, shielded by a sequence of carbon/graphene and foil screens with silver-plated drain wires. AQ's DBS (Dielectric Bias System), first encountered on the brand's William Tell speaker cable [*HFN* Dec '20], takes this a stage further. Here a 72V DC power pack located at the destination end of this directional cable is wired between the drain and shield to impress a polarising voltage across the dielectric. AQ had originally postulated that this fixed electrostatic field rapidly 'forms' the dielectric and hastens the 'run-in' time of its cables but now also promotes DBS as a method of improving wide-bandwidth dissipation of induced RF noise (for more – much more – see *https://patents.google.com/patent/US7126055B1/en*).

At the source end of the cable, only the solid-core signal conductors are terminated onto the female XLR although the braided screens of the 'X' and 'R' conductors are soldered to the earth/screen and return pins of the destination XLR plug. In broad terms, the LCR parameters of the RCA and balanced XLR ThunderBirds combine a moderate loop resistance with low capacitance and higher-than-average series inductance.

ROLL OF THUNDER

If ever the concept of 'incremental gain' could be applied to cable design then the empirical thinking behind AQ's ThunderBird gets very close. The 'evolution' of the AQ cable sound (if you can entertain the notion) takes another step here with the ThunderBird helping to paint a more detailed and colourful musical picture onto a progressively blacker canvas. So there is fire in its belly – evidenced by the power of those drums from Don McLean's folk-rock standard *American Pie* [Capitol; 192kHz/24-bit] and purity in the hi-hat percussion across The Crusaders' *Street Life* [MCA Records] – but also a calmness and serenity born of those hash-free backgrounds.

While this is a cable for all seasons, with no specific emphasis that might steer listeners to one musical genre over another, AQ's avowed attempts to lower the cable's characteristic impedance and suppress electrostatic fields may well bear more convincing witness in some systems than others. Deployed in our dCS Vivaldi APEX/Constellation set-up, it fully justified its position on the high-end's top perch, never once ruffling a feather.

ABOVE: Three signal cables and dual battery-powered DBS packs are employed for each mono XLR interconnect. The polished connections are heavily silver-plated

VERDICT

While this interconnect's spiritual namesake may have flashed lightning from its beak and rolled thunder from beneath its wings, AudioQuest's own ThunderBird still exerts its own, if somewhat less frightening, influence on the 'fertility' of your hi-fi system. The impact of its DBS polariser may well be both system and environmentally sensitive, so a home demo is strongly recommended for this novel and potentially insightful-sounding cable.

HI-FI NEWS SPECIFICATIONS

Series Inductance (1m loop)	1.4µH
Parallel Capacitance (1m)	82pF
Resistance (1m loop)	190mohm
Leakage	200Mohm

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AUDIO FILE

Factory-terminated interconnect cables
Made by: In-akustik GmbH & Co. KG, Germany
Supplied by: Karma AV, York
Telephone: 01423 358846
Web: www.in-akustik.de; www.karma-av.co.uk
Prices: £325/£340 (1m stereo set, terminated in RCAs/XLRs)

hi-fi news EDITOR'S CHOICE

In-akustik NF-204 Micro Air

A number of cable brands independently pursue the goal of achieving low capacitance and dielectric loss by utilising an 'air' insulation. Some implementations are more exotic than others, with the likes of Kimber's flagship 'Naked' interconnect [*HFN* Mar '22] – a cool £12,700 per terminated metre – illustrating what's possible when cost is no object. Somewhat more affordable, but also leveraging the 'air dielectric' theme, is the NF-204 Micro Air interconnect from Germany's most prolific cable manufacturer, In-akustik, based in Ballrechten-Dottingen.

Priced at £325 for an RCA-terminated 1m stereo set (or £340 for XLR plugs) the NF-204 Micro Air also adheres to In-akustik's aim of achieving low capacitance – something you may choose to read about, at length, on its website. In practice, its low parallel capacitance is very close to that recorded for Kimber's Naked, but the series resistance is significantly lower still, thanks to the larger cross-sectional area of the NF-204 Micro Air's conductors.

'We were taken on a musical journey first travelled 43 years ago'

The picture [above] clearly illustrates the three concentric bundles of oxygen-free copper strands that form the NF-204 Micro Air's symmetrical signal and return conductors. The individual strands are coated in polyurethane, preventing oxidation and inter-strand conduction. The bundles are clamped in place by a polyethylene sleeve and woven jacket – it's the latter that affords the 'air' between the gently twisted conductor cores, even though this is not the pure air dielectric attempted by those more esoteric cables. The cores are screened by a peripheral foil and braid that also forms the 'X' connection when wired in balanced mode with XLR plugs.

There's no disputing the superb build and termination of these cables, and particularly the quality of the custom, cold-welded connectors with their tellurium/copper contact pins. This is precision German engineering at its very best.

TAKE TO THE AIR

Auditioned, as usual, between our resident dCS Vivaldi One player/DAC [*HFN* Feb '18] and Constellation Inspiration monoblock power amplifiers [*HFN* Oct '19], the supplied (balanced) set of NF-204 Micro Air interconnects delivered the direct, articulate and essentially very faithful sound that we've come to expect from the brand [*HFN* Jun '14 & Jan '16]. Moreover it proves a complementary match with the partnering Reference LS-204 XL Micro Air speaker cable [*HFN* Feb '21] which possesses a little more 'edge' than earlier iterations.

ABOVE: Not as unwieldy as it looks – each conductor comprises three concentric bundles of fine copper strands, sheathed in a PE tube. Connectors are cold-welded under a pressure of 1.5 tons

By way of illustration, what could be more appropriate than 'Cloudburst Flight' from the 2019 remastering of Tangerine Dream's 1979 classic *Force Majeure* [UMC – 00602577478840]? Here the cables did nothing to diminish Edgar Froese's intense, swirling guitar solo, the chords sequenced and punctuated by electronic keyboards to thrilling effect.

Often judged in the shadow of the title track and 'Thru Metamorphic Rocks', 'Cloudburst Flight' has always struck us as the most melodic and uplifting quarter of the album, and with these In-akustik interconnect and speaker cables in tow we were taken back on a musical journey first travelled 40-odd years ago.

Switching both pace and genre, the delicious, delicate sound of the Marc van Roon Trio's *Quantum Stories* [Challenge Classics CR73368; DSD64], recorded in a reverberant church acoustic by Bert van der Wolf, was given room to breathe by the system while the cables, perhaps, brought a little added contrast to the piano. If you want 'lush' or 'rose-tinted' then look elsewhere because these 'Micro Air' interconnects have every intention of giving it to you straight and unvarnished.

VERDICT

Technically, the low capacitance, low-resistance and low-leakage NF-204 Micro Air is about as broadly compatible an interconnect as any enthusiast might wish for. It also combines a useful flexibility, for wiring-up in tight spaces, with a very robust standard of construction. All good so far... and the 'sound' is also as balanced and 'non-invasive' as any reasonably neutral audio system would demand. So if you're thinking of blowing the cobwebs from your set-up, In-akustik will gladly provide the air!

HI-FI NEWS SPECIFICATIONS

Series Inductance (1m loop)	0.65µH
Parallel Capacitance (1m)	61pF
Resistance (1m loop)	49mohm
Leakage	>300Mohm

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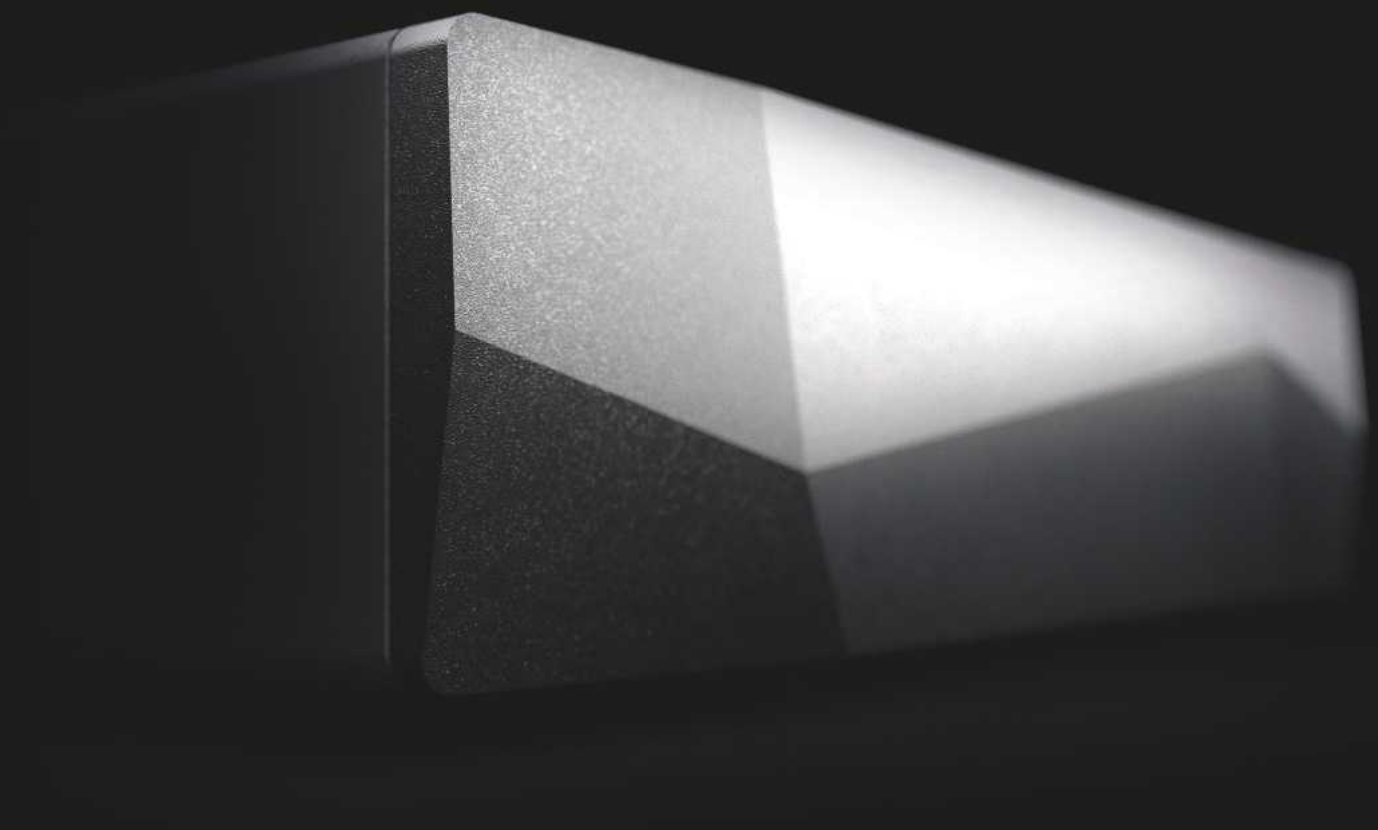

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AUDIO FILE

Factory-terminated loudspeaker cables
Made by: Kimber Kable (RKB Industrial), Utah, USA
Supplied by: Russ Andrews Accessories Ltd, Kendal, UK
Telephone: 01539 797300
Web: www.kimber.com; www.russandrews.com
Prices: £4526 (2.5m stereo set, terminated in spades or bananas)

hi-fi news EDITOR'S CHOICE

Kimber Carbon 18XL

Kimber is a stalwart of the cable scene, emerging alongside Monster and AudioQuest in the late '70s but with its own spin or, more accurately, twist on things. The open-weave geometry, variable-diameter copper stranding and Teflon insulation of the company's now-classic 4TC speaker cable defined not only its lumped parameters but also informed its 'voicing' – a warm but richly detailed sound that won the hearts of many a budding audiophile.

Wind forward 40 years and the new Carbon 18XL flagship is a complex reimagining of this formula. The price, too, is certainly 'next level' at £2870 for a 1m stereo pair up to £6734 for a 4.5m set and £552 per stereo 0.5m thereafter. It's a substantial but flexible cable so what, exactly, is under the jacket?

> 'Carbon 18XL is a complex reimagining of Kimber's formula'

The two 14.5 gauge conductors each comprise 21 gently twisted strands (three groups of seven 'Varistrands') held within a conducting, graphite-impregnated polymer sleeve which, in turn, is clamped within a PTFE-like dielectric. This might suffice for the signal and return legs of any other speaker cable, but not Kimber's Carbon 18XL! Woven around these is a series of 16 additional 19.5 gauge conductors, (eight per side) each comprising seven copper Varistrands bound within a similar, but slightly thinner graphite/polymer and PTFE dielectric. The familiar 'Kimber weave' is achieved by supporting this swirl of wires over a soft neoprene core surrounding the centre conductors.

This complex geometry is concealed within the finished cable by a woven jacket and a pair of custom, laser-engraved aluminium ferrules that hold everything in place. As standard, the cables are terminated in WBT-0610Cu bananas or WBT-0661Cu/WBT-0681Cu spades at no extra cost.

With a combined 8-gauge per side, Kimber's Carbon 18XL has a very low series resistance, and insignificant power loss over long runs. However, thoughts of the latter need to be tempered against the cable's relatively high parallel capacitance. Not all amplifiers will respond as favourably, so a home demo is a must with Carbon 18XL.

WEAVING A SPELL

Auditioned, as usual, between our Constellation Inspiration monoblock amplifier [*HFN* Oct '19], B&W 801 D4 speakers [*HFN* Nov '21] and, indeed, a few other loudspeakers that crossed our path, Kimber's Carbon 18XL consistently delivered what can only be described as its 'signature sound'. This is not 'colour' by another name, but rather an affection for the inherent warmth and robustness of the music at hand. Not all Kimber cables have this quality but the majority that 'hit the mark' do, and it's here with the Carbon 18XL in very rude health.

ABOVE: Beautifully assembled, Kimber's Carbon 18XL is terminated with engraved alloy ferrules and a choice of WBT bananas or spade terminations. Its intricate internal construction combines variable-diameter copper strands with fluorocarbon dielectrics, electrostatic graphite/polymer screening plus mutual screening provided by the interwoven signal/return stranding

Take Christian McBride's Inside Straight quintet *Live At The Village Vanguard* [Mack Avenue MAC1192] where Warren Wolf dazzles on vibes and the man himself strong-fingers his way through the bass-and-drum closer 'Stick & Move'. There's no dilution of this strength or potency with Carbon 18XL, which keeps similar faith with massed orchestral works as it does with, for example, the dazzling instrumental passages from Big Big Train's *Common Ground* [English Electric EERCD0028]. Forty-plus years on, 18XL is a worthy flagship.

VERDICT

Combining all its topologies into one cable might not necessarily have been a recipe for success, but Kimber has pulled it off with Carbon 18XL. This heavyweight but not inflexible cable is about power and warmth rather than citrus top-end freshness, although its moderate capacitance will no doubt bring a little extra 'zing' to upper mid and treble with some amplifiers. It's a great addition to the pantheon of high-end cables – less 'me too', more 'can do'.

HI-FI NEWS SPECIFICATIONS

Series Inductance (1m loop)	0.19µH
Parallel Capacitance (1m)	428pF
Resistance (1m loop)	5.5mohm
Leakage	50Mohm
Power Loss (8ohm speaker)	0.006dB/m

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Dual CS 601

Mention Dual turntables and one of the many incarnations of the company's CS 505 is sure to come to mind. Built on a sprung-steel plate, it took its cue from the basic designs that had been around since the 1950s and, being a budget deck, sold mainly to those taking their first step on the audiophile ladder. But Dual made more ambitious models too.

In 1975 it unveiled the CS 601, the first ever belt-drive model in its range. Supplied with a factory-fitted Shure V15/III-LM cartridge and finished in either white or simulated walnut, the CS 601 (as the complete package was known) was not a cheap option at around £135, but 'professional' levels of performance were promised.

'This deck rewards with a sound that's remarkably refined'

The CS 601 featured a powerful eight-pole synchronous motor that had its speed locked to the mains frequency. The arm could be operated manually or automatically and was suspended on a self-adjusting gimbal bearing, balanced by a decoupled counterweight.

Meanwhile, Dual's unusual 'Vario Pulley' was used to give some fine speed adjustment. This clever arrangement sees the motor pulley split into eight segments whose overall diameter can be changed using a tapered pin pushed down into the top. With some Dual decks this is done using a screwdriver, once the platter has been removed. In the case of the CS 601, however, a mechanism was provided that brought fine control of the speed to a discrete knob, mounted in the pivot of the speed lever.

The mechanism is partially flywheel-assisted by its combination of a 1.3kg alloy platter resting on a 0.8kg sub-platter. These are both die-castings with lead weights placed around the inside edge of the platter by way of dynamic balancing. The centre spindle runs on a gently radiused tip and plastic pad at the bottom of a deep die-cast bearing that also features phosphor bronze bushes.

For optimal damping, the platter features a bonded mat and has strobe rings cast into its underside to aid in fine tuning the speed, which is 33rpm only. The arm also shows many examples of considered design. Downforce is applied dynamically using a spring-loaded roller on the pivot, the static setting made by a counterweight decoupled by a soft plastic insert.

EASY RIDER

The title track of Steely Dan's album *Aja* [ABC AA-1006] showed just what this turntable is capable of. There was a fine sense of poise in a laid-back, easygoing sort of way, with percussion that shimmered rather than crashed, while the vocals were both well integrated and placed. A pleasing bass tubbiness was also noted, as this particular recording can sound a bit too dry when heard with some arm and pick-up combinations.

Switch to classical music, and Strauss's Horn Concerto No 2 in E flat [Philips 412 237-1] sounded creamy smooth, the instruments set against a pleasingly quiet background during the opening passages. Maybe a little more sharpness from the strings would have added some extra excitement, but the balance did allow the piece to be enjoyed at a decent volume level without unrealistic amounts of glare being generated.

Arguably, the stereo effect is rather left/right focused rather than spread over a wide soundstage, and we've certainly heard other decks project a more solid centre presence. But these are minor complaints against what is a remarkably refined sound overall.

If anything, the CS 601 plays records without making them sound too much like records. The downside is that you never feel like you are in the front row at a performance. Yet while other turntables capture a greater sense of immediacy, the price can be harshness and fussiness elsewhere.

So if you are seeking a turntable and cartridge combination that yields a smooth but detailed and well-crafted sound, then the CS 601 and V15/III-LM will surely deliver.

ABOVE: The neat, efficient appearance of the CS 601 still looks functional and fresh today. Traditionally Dual made idler-drive decks but the wording on the platter mat's central disc highlights that this is a belt-drive design. This example retains its factory-fitted V15/III-LM cartridge, Shure's flagship in the mid-1970s

VERDICT

Well put together, and with a sound that is both smooth and sufficiently revealing, a Dual CS 601 should be a lasting source of musical pleasure. Recommended, especially where automatic operation is required.

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.31rpm (–0.06%)
Time to audible stabilisation	5sec
Peak Wow/Flutter	0.03% / 0.08%
Rumble (silent groove, DIN B wtd)	–65.7dB
Rumble (through bearing, DIN B wtd)	–64.5dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–50.0dB
Power Consumption	2-7W
Dimensions (WHD) / **Weight**	420x148x365mm / 7.6kg

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Hitachi HT-L70

First encountered in 1979 in the form of Technics' SL-10 [*HFN* Apr '19], the LP sleeve-sized turntable was such a success that within a year or so most major Japanese manufacturers had added one to their range.

As well as being compact, these new turntables usually included direct-drive motors, linear tracking and fully automated operation. As such, they transformed the experience of playing a record from a process that had changed little since the mid-1950s into something appropriate for the high-tech '80s.

'We noted real insight and clarity during the Debussy recording'

Released in 1982 and costing around £180, Hitachi's HT-L70 was a good example of the emerging breed. The motor was a quartz-locked direct-drive type and used Hitachi's proprietary Unitorque motor, which drew on techniques developed for the company's range of video cassette recorders.

The movement of the tonearm required a second motor and this was mounted in the lid, driving the arm along a pair of rails via a tensioned nylon cord. Optical sensors in the gimbal pivot determined the amount of tracking error generated as the stylus followed the record's groove and this information was used to command the motor to advance the position of the arm when necessary.

The mounting of the arm and its bearing assembly above the record surface enabled the arm to have an unusually short effective length of just 95mm. This, together with the linear-tracking system's claimed maximum angle error of just 0.1°, allowed Hitachi to declare that the HT-L70 worked 'tracking wonders'.

The cartridge used was Hitachi's own MT-70. It featured the same T4P mounting made popular by the SL-10, which could be replaced with a standard T4P type. But for the HT-L70's track-detection features to work, only the MT-70 would do. This was because the track/gap sensor 'read' the disc via infra-red light shining in a focused beam onto the disc, just in front of the stylus. The reflections from the surface of a record change in the bands that mark the intervals between tracks and it was these that the Hitachi MT-70 pick-up was able to sense.

VIVID EXPERIENCE

We found the sound of the HT-L70 to be engaging and lively, though being critical, we also have to say that we found it a little lacking when it came to the sense of scale it could bring forth from a musical performance. This manifested itself in two ways, one being what we can only describe as a slightly restricted impression of contrast between loud and soft sounds. The other was a constriction of the soundstage, in terms of width and depth. Both observations are marginal, but they do mean the period rivals from Technics have the edge.

Listening to the track 'Industrial Disease' from Dire Straits' 1982 album *Love Over Gold* [Vertigo 6359 109] was a vivid experience, but we did feel to some extent that treble brightness was obscuring the track's bass weight. There was much to commend the presentation overall, though, in particular the good level of vocal clarity and an ability to keep order in a song that builds into quite a complicated mix.

Debussy's *La Mer* [Philips 6514 260] showed another side to the HT-L70. Aside from the violins sounding a trifle strained, the only issue that marred our overall enjoyment of this piece was an occasional 'bump-thump' noise emanating from the tracking motor. Again, real insight and clarity were noted, especially during the quieter parts of the recording.

In short, while this deck isn't the SL-10 rival Hitachi may have hoped it to be, it works well and has many strengths. As an alternative to a modern 'budget' design that lacks the sophistication of direct drive, quartz lock and linear tracking, it has much to recommend it.

ABOVE: The HT-L70 looks very similar to the Technics SL-10 [*HFN* Apr '19], although its controls and graphics are a little more ostentatious and plastics are used for the casework rather than cast alloy. Since the turntable's controls only work when the lid is fully closed, a catch is provided to keep it locked shut while a record is in play

VERDICT

The technical quality of the motor and automatic systems here are of real merit. Yes, the HT-L70 falls short of Technics' SL-10 on sound but given that Hitachi reliability was second to none during this era, it shouldn't be problematic to own, despite it now being 40 years old.

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.30rpm (–0.095%)
Time to audible stabilisation	2-3sec
Peak Wow/Flutter	0.06% / 0.06%
Rumble (silent groove, DIN B wtd)	–66.3dB
Rumble (silent groove, unwtd)	–60.3dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–52.5dB
Power Consumption	8-10W
Dimensions (WHD) / **Weight**	315x83x315mm / 5kg

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Sony CDP-502ESII

Launched in 1966 with the TA-1120 integrated amplifier, Sony's ES series was always at the forefront of what the company had to offer. It was inevitable, then, that it would introduce an ES CD player as soon as this was feasible and when it came there were two models: the range-topping CDP-701ES and slightly more affordable CDP-501ES.

Both were based on the major parts used for the company's, and world's, first ever CD player – the CDP-101 [*HFN* Jan '12] from 1982. Yet neither convincingly improved on the capabilities of the original machine. Part of the problem with the CDP-501ES was its reliance on a single channel, time-shared DAC and the lack of a digital filter.

In 1984, Sony launched the CDP-502ES, which had at its heart a 2x oversampling digital filter. At a stroke this relieved a problem associated with early machines, such as the CDP-101, that required a steep 'brick wall' analogue filter to deal with aliasing distortions. The 2x sample rate allowed a far more 'relaxed' filter to be employed.

> 'We couldn't fail to admire the sheer clarity of the vocals'

Yet the CDP-502ES's DAC was still time-shared, meaning a phase error existed between the left and right channels. The digital filter halved this effect, but at high frequencies it was still substantial.

In the year that followed its release, the CDP-502ES looked even less competitive. This was because Philips introduced the CD 650 and Marantz unveiled the CD-65, both of which employed dual 16-bit DACs and 4x oversampling.

Sony's response was the CDP-502ESII we have here. Gone was the single Sony CX20152 DAC to be replaced by dual Burr-Brown PCM53s. This led to a redesign of all the supporting circuitry too, including the introduction of some novel techniques. One was the use of an internal optical link between the digital filter and DAC, allowing the use of split ground planes and power supplies to be optimised.

Looking at it today, it's hard not to love the CDP-502ESII. The layout of the fascia is superbly executed and while the high-speed track access system may have lost some of its capability to amaze over the years it still remains technically impressive. Meanwhile, the variable output presents the option for direct connection to a power amplifier in a truly minimalist CD system. There's even the luxury of remote control for the little, motorised, volume knob – no preamplifier required.

LOVE AT FIRST BITE

We found the CDP-502ESII to be a great improvement over any previous Sony CD player. Its strength is the way it locks solo vocals at the centre of the soundstage in a way that is full of vigour and verve. This is something the CDP-101, *etc*, could never really achieve. Tonally it tends towards dryness, especially when compared to a Philips/Marantz player from the same era. This leads to an enhanced sense of speed and drive, and while this means it isn't an especially relaxing machine to listen to, when the music requires energy it really shines.

Belinda Carlisle's 'Lay Down Your Arms' from the album *Real* [Offside CDV 2725] enjoyed an extra degree of bite and edge that was clear to hear, the super quick delivery of the Sony CDP-502ESII never seeming to impede the natural flow of the recording. Calmer musical styles also revealed the CDP-502ESII to be a player of real quality, Suzanne Vega's *Solitude Standing* [A&M CD395136-2] proving a real pleasure to listen to throughout. Instrumentation – the percussion in particular – was beautifully rendered, sounding explicit without ever becoming over bright.

In isolation one could convince oneself that the CDP-502ESII was the equal of any player, but compared with some period rivals its presentation could be described as a little two-dimensional. 'Woman In Chains' by Tears For Fears lacked its usual spacious ambience, both left to right and front to back. As if to compensate for this, however, the outstanding clarity of Oleta Adams' vocals, helped no doubt by a subtle presence lift, was something we couldn't fail to admire.

ABOVE: The styling is generic but so well executed the machine remains attractive today. There are buttons galore, but it all makes logical sense – the three illuminated 'Play Mode' keys proving particularly useful. Finally, the high-speed action of the disc tray complements the rapid track access time of this iconic Sony CD player

VERDICT

The CDP-502ESII represents a point when Sony's CD players really came of age. By reputation it is durable too, so could be enjoyed in regular use. Just remember to match it with a system that's not shy on bass in order to hear it truly come to life.

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	1.98Vrms / 945-960ohm
A-wtd S/N ratio	101.2dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00045% / 0.009%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.00034% / 0.0013%
Frequency response (20Hz-20kHz)	+0.06 to –0.03dB
Digital jitter	430psec
Resolution @ –90dB/–100dB	+0.2dB / +0.6dB
Power consumption	11W
Dimensions (WHD) / **Weight**	430x85x335mm / 8.5kg

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Marantz Model 2226B

Though the receiver was popular in Europe and the US, the British never embraced it to the degree they did separate tuners and amplifiers. This explains why the behemoths produced for the US market were not readily available on UK shores, though there were exceptions, with the widest range of models coming probably from Marantz. The company's lineup of receivers for the 1978 season saw no fewer than 14 models listed, including the Model 2226B here.

'Chunky bass, bright treble... it's all about dynamics and fun'

Pleasingly large and impressively heavy at 11.5kg, the Model 2226B offered dual-concentric tone controls for treble, midrange and bass, a centre tuning meter and a high (scratch) filter. Meanwhile, radio tuning was operated by a horizontally-mounted flywheel known as 'Gyro Touch', a distinctive feature unique to the company and a particular joy to use. As well as offering complete coverage of the MW and FM bands, inputs were provided for a turntable (MM cartridge), two tape recorders (one with a monitoring loop) and an auxiliary line level source.

Technically the 2226B was fairly conventional but still generously executed. The transistor power amp section was DC coupled with no transformers or capacitors between it and the speakers. DC coupling helps maintain an amp's damping factor at low frequencies, with the intention of promoting bass that is both tighter and cleaner, especially at high listening levels. Meanwhile, the power output was a modest but 'useable' 45W/8ohm.

As for the stereo decoder, this was constructed mainly on an integrated circuit and used the phase locked loop (PLL) principle to give good separation, even when signal strength was less than optimal. Aside from the radio, the main source with which receivers were expected to be used was, of course, a turntable. To obtain the best performance, a three-stage RIAA equalising amp was employed, running from an elevated voltage of 33V to achieve decent headroom.

HIGH CALIBRE

Plump, chunky basslines, bright extended treble... there's not a hint of worthy-but-dull dryness about this receiver. Rather, it's all about dynamics and fun. Bass retains good definition, even when the amplifier is working hard – even if it's the bass that first falls apart when the amplifier's limit is reached. One weakness can be heard in the part of the midrange that encompasses female vocals as these can come across as a little strident at times. As an example, Cyndi Lauper's vocal on 'The World Is Stone' [*Twelve Deadly Cyns*; Epic 447363 2] – sounded as if it had been remixed with the vocal track turned up slightly.

This effect is certainly slight and not in itself unpleasant, but it is presumably contrary to the singer's original intentions. This observation aside, the performance of the amplifier section of the 2226B demonstrates that there is no reason to believe that receivers are necessarily the poor relation to separate components.

A performance of Mussorgsky's *Boris Godunov* by the New York Metropolitan Opera on BBC Radio 3 (90.3MHz) presented an excellent opportunity to assess the quality of the 2226B's tuner section. With a modest rooftop antenna it was possible to secure noise-free reception in stereo and image width and depth were both satisfactory, although listening from a CD results in a larger spread of sound.

Tonally the tuner's sound was slightly soft when compared to that of records and CDs, but the rendering of fine detail reached a high standard. One would need a separate tuner of a high calibre to better the 2226B in this respect.

ABOVE: **The 2226B's illuminated FM/AM display (signal strength and centre tuning for FM) and generous array of rotaries was emblematic of the Marantz receiver's time. The weighted flywheel tuning control ('Gyro Touch Tuning') was also a distinctive Marantz feature and one that worked very well in everyday use**

VERDICT

Receivers may not top every audiophile's wishlist, but on this showing it's difficult to see why. Solid and well made, Marantz's 2226B is a refined performer and feels like it will last forever provided it's cared for. It also has just enough power for use in a main system.

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	45W / 63W
Dynamic power (<1% THD, 8/4/2/1ohm)	59W / 65W / 23W / 10W
Output imp. (20Hz–20kHz/100kHz)	0.55-0.65ohm / 1.4ohm
Freq. resp. (20Hz–20kHz/100kHz, 0dBW)	–0.5dB to +0.35dB/–1.5dB
Input sensitivity (for 0dBW/44W)	36mV / 235mV
A-wtd S/N ratio (re. 0dBW/44W)	82.0dB / 98.4dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.055-0.09%
Power consumption (Idle/rated output)	18W / 165W
Dimensions (WHD) / **Weight**	440x137x365mm / 11.5kg

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Philips AG9016

How much power does your present amp produce? Wattages in the three-figure range are no longer exceptional, but is this necessary? After all, the Philips AG9016 seen here is rated at 2W per channel.

In the mid-1950s the company had designed a novel type of amp, known as 'Hi-Z', which was first used in its 'Magic Box' record player and BX 998 A table radio. This amplifier, implemented entirely with valves, featured an active crossover and a transformerless output stage that drove the bass loudspeaker directly.

A corollary of transformerless operation was that 800ohm loudspeakers were required, which mattered little when it came to the record player and table radio as they were integral to the design.

'There was an honest simplicity to how the music was presented'

But it sent Philips down a dead end when it came to competing in a new market niche – separates.

The AG9016 appeared in 1963. It was small, neat, pretty and, despite its limited output power, proved an ideal introduction to 'proper' hi-fi equipment, for the company and music lovers alike.

Technically there was nothing new about the amplifier. The complete circuit came directly from the AG9115 (later the AG9125) portable stereo record player. This included the complete PCB with the four valves, most of the controls and many of the other small components. Even the mains switch and distinctive green power indicator lamp were carried over.

Performance was identical, the only change being the addition of a three-way source selector switch to choose between a turntable, a radio tuner and a tape recorder. The AG9016's output valves were EL95s, a miniature type with a 7-pin base that was akin to a shrunken EL84 and seldom seen in quality audio applications. The circuit was single-ended with two tiny output transformers, mounted at opposing angles to reduce mutual coupling.

Meanwhile, the preamplifier functions were performed by a single ECC83 in each channel. The two triodes in each were used as a voltage amplifier and a driver for the EL95, the stages being interspersed by a passive tone control arrangement. Finally, hum was minimised by the use of a balanced heater supply, fed from a centre-tapped transformer winding.

SMOOTH TALKER

The AG9016 won't reproduce an orchestral crescendo with the bracing realism of a 50W amp, or pound out the massive basslines of dance club music with any conviction at all. But for a pleasant evening of considered listening it really is quite alluring.

Yes, the treble has a veiled quality, which suggests a limited top-end extension, while bass tightness is lacking too. But this comes as no surprise given the scale of the amplifier's construction. Between these two extremes, though, is a beautifully smooth and easy-to-listen-to midrange that we felt just met the requirements of high-quality reproduction.

The Dave Brubeck Quartet's 'Strange Meadow Lark' [*Time Out*; Columbia CK 65122] sounded more 'authentic' through the AG9016 than it sometimes does through more sophisticated equipment. Smoothness and spaciousness were the key attributes, while there was an honest simplicity to how the music was presented that made it sound genuine – even if the percussion lacked sparkle and bite.

Realistic sound levels could just about be achieved to represent the instruments and the way in which they were being played, suggesting that if you are into dinner jazz a 2W amplifier might be all you need.

Similarly, Katie Melua's songs sound best when she's not shouting at you, so plenty of power isn't required here either. 'Shy Boy' [*Piece By Piece*; Dramatico DRAMCD0007] displayed less vocal sibilance than usual, while Melua's voice was well separated from the various instruments. If you're a devotee of close-miked acoustic recordings, have thin walls and possess a bright-sounding pair of sensitive speakers, the AG9016 may be just the thing!

ABOVE: The small valves used inside the amp are cool enough when running to make unsightly perforated grilles unnecessary. The green power lamp is also an elegant touch, ensuring that what the AG9016 lacked in power (sub-2W) it more than made up for in prettiness. Neat and attractive, products of this type helped to make 'unit audio' domestically acceptable

VERDICT

Are two watts enough? Not really, but there are situations in which this surprising amplifier is still a joy to listen to. Vintage valve amplifiers seldom come less obtrusive or easier to use than the AG9016.

HI-FI NEWS SPECIFICATIONS

Power output (<2% THD, 8/4ohm)	1.3W / 1.2W
Dynamic power (<5% THD, 8/4/2/1ohm)	1.8W / 1.7W / 0.8W / 0.4W
Output imp. (20Hz–20kHz/100kHz)	3.7-1.4ohm / 16.5ohm
Freq. resp. (50Hz–20kHz/100kHz, 0.5W)	+1.9dB to –4.9dB/–22dB
Input sensitivity (for 0dBW/2W)	332mV / 470mV
A-wtd S/N ratio (re. 0dBW/2W)	72.1dB / 75.1dB
Distortion (100Hz-20kHz, 1W/8ohm)	1.3–15.5%
Power consumption (Idle/rated output)	26W / 26W
Dimensions (WHD) / **Weight**	310x85x250mm / 4.5kg

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Crimson Elektrik 1200 series

British company Crimson Elektrik began in the mid 1970s as a manufacturer of power amp modules. Complete amplifiers followed in 1979, initially in kit form and later fully assembled, the system seen here – a CS-1200M preamp and rare CS-1204 stereo power amp – one of the first to arrive ready to use.

In its standard form, the preamp offered inputs for a turntable (MM), a tuner, auxiliary source and a tape recorder. Users could also connect a tape deck as part of a tape loop, at which point the source/monitor switch came into play. Using this latter method freed up the normal tape input for another purpose, giving two spare sets of line inputs in what was still the pre-CD era.

> 'The Crimson pairing boasts a midrange that is clean and explicit'

The turntable input offered variable capacitance loading to compensate for interconnects and pick-up 'brightness', a switch at the rear of the CS-1200M adding an extra 150pF if necessary.

Additionally, an MC head amplifier could be specified. This boosted the output of an MC cartridge to a sufficiently high level that it could be fed into the MM stage for further amplification and re-equalisation. Two levels of MC sensitivity were offered – 75µV or 185µV – with selection achieved via the use of an internal switch.

As well as being able to opt for the MC stage, the user also had a choice of power amplifiers with which to complete the system. The CS-1204 was the entry stereo model with a claimed output of around 65W per channel, its basic building block being DC-coupled power amplifier modules of Crimson's own design. These used sturdy high-voltage bipolar transistors in a largely conventional quasi-complementary layout. If more power was required then two CS-2000 mono power amps could be specified.

Whichever power amp option was chosen, the resulting system was similar in appearance to those then offered by Quantum and Exposure, while its facilities appealed to the sort of audiophile for whom the offerings from the big Japanese multinationals did not find favour.

MAKING SENSE

Like many specialist British amps at the time, the Crimson pairing boasts a clean and explicit midrange, though this comes at the expense of some bass. This makes sense in a vinyl-based system, where there is little subsonic information to be recovered, but with CD the Crimson combo can sound dry and processed. The treble allowance is more generous, high-frequency sounds being fully extended, even if they do lack the ultimate 'sparkle' of best-in-class performance.

Clannad's *Magical Ring* [RCA ND71473] proved to be a satisfying listen – pounding basslines are not required for all musical styles after all. It was the sense of atmosphere in tracks such as 'Newgrange' that the duo seemed best able to preserve. This atmosphere may be artificial in that it was created with generous helpings of studio reverb, but this combo's ability to keep the various instrumental sounds separate from the vocals – and to retain the detail in the latter – is what made the performance trump that of period rivals we've heard.

Similar virtues were noted in larger scale orchestral pieces, but the lack of warmth and weight could at times make the Crimson amps sound more 'hi-fi' than 'real'. Play the allegro of Haydn's Trumpet Concerto in E flat [Philips 426 689-2] and while we were in no doubt as to the virtuosity of the performer and the excellence of the recording technique, we were not transported to the concert hall in the way some equipment can achieve.

Still, as a first product from a small company it is difficult not to be impressed by the way this combination sounds. As a practical synthesis of the 'British sound' of the era it works as well as any.

ABOVE: The CS-1200M preamp [top] with its input select, volume and balance rotaries was described in *HFN* Jun '80 as 'austere, lacking the sparkle of Oriental creations... but is this a hardship?' However, if the CS-1200M's folded steel chassis was too industrial for 1980s audiophiles, Crimson also offered decorative wooden sleeves

VERDICT

For those who like their equipment to be both British and obscure this Crimson amp has a lot going for it. A dry but detailed sound is what's on offer, so if you can do without ranks of knobs and buttons and a full measure of the lowest octave then this could be just the thing.

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	75W / 110W
Dynamic power (<1% THD, 8/4/2/1ohm)	103W / 165W / 65W / 31W
Output imp. (20Hz–20kHz, pre/power)	630-670ohm / 0.129–0.088ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to –3.1dB / +0.0 to –2.1dB
Input sensitivity (for 0dBV/0dBW)	104mV (pre) / 80mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	95.5dB (pre) / 89.2dB (power)
Distortion (20Hz-20kHz, 1V/10W)	0.00006-0.0009%/0.007-0.077%
Power consumption (idle/rated o/p)	10W/196W (4W, preamp)
Dimensions (WHD, Pre/Power)	250x60x300/352x68x349mm

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Paul Miller
Group Editor
Technical writer on all things audio for 40 years, award-winning test engineer and second-term President of EISA, Paul Miller took over the editor's chair in 2006

Rubies and rollercoasters

It's been a year of unexpected twists and turns says **Paul Miller** who, while navigating a return to 'normalcy', also recognises our desire to glance back, and linger awhile, before looking forward

As 2022 saw us slide into a new and turbulent 'normal', I was struck that we often found ourselves celebrating an event from *previous* years. Anniversary products, marking the birth of an audio company or milestone in the evolution of a longstanding component, have become a 'thing'. Often, with the likes of SME's spectacular Model 60 turntable [p39] or Clearaudio's Reference Jubilee [p32], the date itself had shifted, courtesy of Covid and disrupted supply chains.

Nevertheless, as Tim recollects [p147], we have a very real ruby anniversary this year as we remember the launch of the Compact Disc in Japan in 1982. EISA, the Expert Imaging and Sound Association, to which *Hi-Fi News* and *Home Cinema Choice* are affiliated [see *HFN* Oct '22], also sprang into beginning as a small Photo Awards 'collective' in 1982.

BIRTH OF AN ERA

Coincidence? Not exactly, for the early '80s was a watershed in the evolution in consumer tech – and digital/computing technology in particular. I also cut my teeth as a 'hi-fi reviewer' about the same time although I missed out on the key contenders of CD's first generation. I've since made up by ensuring we've located, tested and re-reviewed all the classics – the Philips CD100 [*HFN* Oct '11] and Sony CDP-101 [*HFN* Jan '12], *etc*, in our long-running Vintage Review series.

The decade that followed the launch of CD was little short of revolutionary for our hi-fi industry. Even the digital technologies that 'came and went', like DCC, DAT and MD, were stepping stones in the development of digital audio *processing* that has rippled through to modern-day streaming platforms. Intriguingly, there are those who would claim CD never sounded as good as its apex in the late '80s/early '90s – the point when DAC architectures reached a new level of sophistication but before CD-ROM/DVD would come to dominate both the disc-reading, clocks and core silicon of our players. After DVD, CD technology would no longer be so singularly purposed.

RIGHT: However large or heavy – and hi-fi is rarely heavier than the D'Agostino Relentless monoblocks seen here – every contender is photographed and tested on site before review in *Hi-Fi News*. We do not cut corners in search of a scoop... PS – that's 'our Ken' holding a favourite Keb Mo CD!

MAKE A DATE

Fast forward to 2022 and while we experienced some glorious hi-fi highs this year – encored in this special issue – there were also downs. Not least the cancellation of our UK Hi-Fi Show *Live* for reasons of State that necessarily overtook our event [Welcome, *HFN* Nov '22].

> 'The UK Hi-Fi Show *Live* will return to Ascot in 2023!'

Nevertheless, with our loyal exhibitors holding firm, and another year to grow the event further with new brands, develop our huge vinyl fair on the 4th floor and with a third 'trade only day', I am in no doubt that we *will* all meet again and share the sights and sounds of hi-fi's royalty together in this spectacular venue. So grab your diary and leaf ahead one year, for the UK Hi-Fi Show *Live* 2023 is scheduled to return to Ascot on 30th September and 1st October.

Patience has its rewards, and that same perseverance and 'nose to the grindstone' attention to detail is also what ensures *Hi-Fi News* will always maintain the quality of 'real' reviewing that you demand and deserve – keeping you as close to the action as we possibly can. Two years ago I revealed how we maintained our in-house photography, listening sessions and world-leading lab tests throughout the pandemic, ensuring our subscribers never missed an issue.

OUR PLEDGE TO YOU

You can read more about the '*Hi-Fi News* Pledge' in each regular issue of the magazine, typically on p39. In a nutshell, every item you see reviewed in *Hi-Fi News* will have been delivered, photographed and lab tested on site – no 'hands on' shortcuts, no quick listen at a dealer or in a distributor's backroom dressed up as a real review.

Bearing in mind the size and weight of the kit that graces our facility every month, the logistics of 'doing it right' take some navigating. Still, however long it took us to assemble the D'Agostino Relentless pre/power and Wilson Audio Alexx V system earlier this year [*HFN* Mar '22], that was a sound that neither Ken nor I will ever forget!

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2

3

4

5

Audio Analogue have redesigned their Anniversary range which consists of two integrated stereo amplifiers and a pre-power combination. All dual mono designs producing large sound stages.
AVM produce an extensive range of modular designed products at all price points. High quality German build and a high-end sound. The new A 6.2 Master Edition amplifier offers a purist, high quality sound in a compact chassis.
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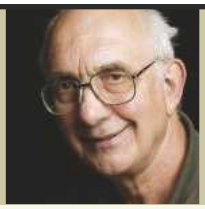


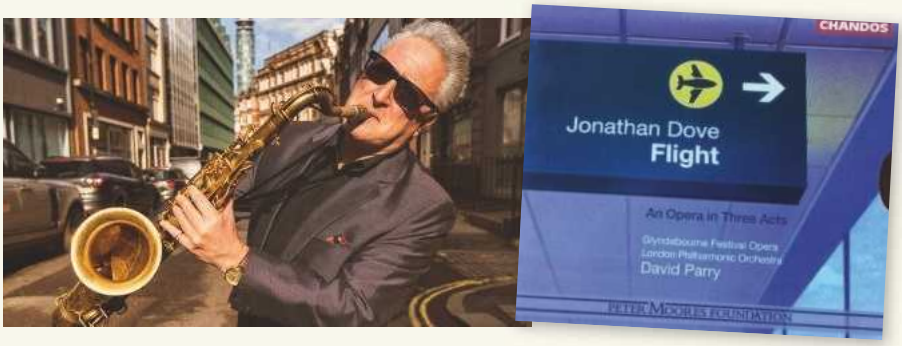
Barry Fox
Technology journalist
Barry Fox trained in electronics with the RAF and worked as a patent agent, but he gave that up to enter journalism. He is one of the world's top technology writers

Slash and burn

Unamplified operas, post-gig CD sales, and lessons for record labels in the mass production of counterfeit discs... The situation isn't sustainable, says **Barry Fox**, as he looks back over the year

The end of lockdown meant the beginning again of live music events. Supply soon exceeded demand because shedloads of free, near-free or heavily cut-price 'house-papering' tickets for shows are now floating round the Internet.

Craving reminders of what live music sounds like, I booked for events that were already wonderfully low-priced at London's three main music colleges – The Royal College of Music, The Royal Academy of Music and The Guildhall. All the colleges are blessed with theatres and halls that have a good acoustic.



ABOVE: 'King of Swing' Ray Gelato, who was selling a live recording of his band on LP at a recent show at the PizzaExpress jazz club and (right) Jonathan Dove's opera *Flight*, released in 2004

NIGHTMARES ON AXE

Only one event disappointed, which was a big band concert at the RCM honouring the Basie sound. Correctly, the RCM rhythm section included a guitar, but whereas the late, great Freddie Green underpinned the Basie band with a chugging acoustic (his strings were strung high over the frets for maximum acoustic volume) some insensitive twerp at the RCM had plugged in an overloud modern electric axe. The concert was called off half way through because of a false fire alarm – perhaps it was triggered by the angry ghosts of Count Basie and Green.

Such silliness aside, the RCM came out of lockdown continuing its brave policy of putting on unamplified operas, that are outside the music mainstream, such as Leonard Bernstein's *Trouble in Tahiti*, *Hansel and Gretel* by Engelbert Humperdinck (no, not Arnold George Dorsey of 'Release Me' fame and fortune) and most recently Jonathan Dove's *Flight*, complete with counter-tenor lead and Michael Rosewell conducting. At £20 for a front-row seat who could ask for anything more?

On each occasion I would have surely bought a CD of the music if it had been on sale after the show. That's what used to happen, just as it routinely did at concerts, clubs and music festivals. But this is 2022 and selling discs would involve a record label pressing something to sell and someone from the record label turning up to sell it. As one musician said after his CD-less spot at the Swanage Jazz Festival, 'How are we supposed to sell downloads?'.

Some performers are now taking matters into their own hands. The Ray Gelato band was selling LP pressings of a live recording at the PizzaExpress club after a recent booking. But going off to browse the racks at Tower, Virgin or HMV is just a memory.

> 'The police seized £170k of "high quality fake CDs"'

Just out of interest, after the RCM events I checked out how I could buy a recording of *Tahiti*, *Hansel* or *Flight*, to play on an analogue home stereo. I ended up buying a secondhand DVD of *Tahiti*, tracked down a used Chandos CD of *Flight* and found an old but new Decca/Solti CD of *Hansel*.

I then went on Spotify and instantly found all three operas for instant stream-play, either for free with the interruption of adverts or ad-free with a subscription. Anyone with even basic IT skills and freely available free open source Audacity software will be able to capture these streams. The same software will allow the adverts to be edited out easily.

This situation cannot be sustainable. It is the musical equivalent of slash and burn, with the eco-balanced South American rainforest destroyed to make space for cheap hamburger cattle. We can't go on for ever relying on underpaid artists living off their parents or partners while we hunt for dwindling finite stocks of old and secondhand pressings, limited runs of burn-to-order CDs or expensive specialist vinyl. Why invest in high-end analogue audio gear if the only source of music is a digital download?

ROM RAID

Encouragingly, the year did see new laws (Copyright, Rights and Remuneration of Musicians) start to limp through Parliament. This followed the damning government report on the Economics of Music Streaming. But the procedural wheels grind painfully slow.

Perversely it was cheering to see the police seize nearly £170,000 worth of 'high quality fake CDs'. Criminals would not be mass-producing counterfeit CDs unless there were customers who would rather pay for them than stream the music for free. Maybe there is a lesson here for the record companies?

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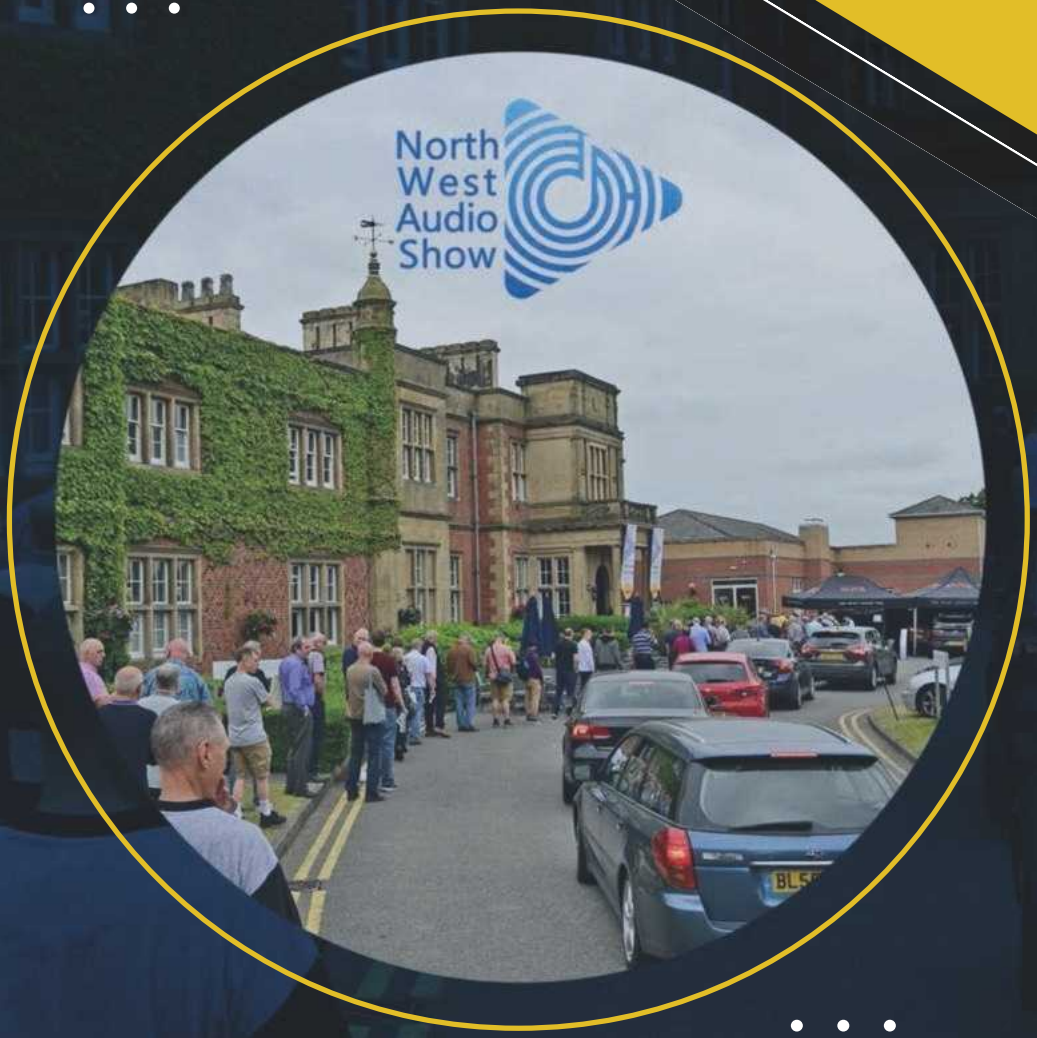

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Barry Willis
Journalist for top American audio-video publications
While his main interest is high-end audio, Barry Willis also writes about the culinary industry, visual art and theatre for a huge variety of US newspapers and magazines

Console yourself

After hearing talk of their return at shows over the years, **Barry Willis** wonders if consoles are making a comeback. After all, one company appears to be working ceaselessly to meet demand

In the 1950s and '60s, home entertainment consoles were *de rigueur* fixtures in middle-class homes. They gradually fell out of favour as separate audio components became more fashionable, but for a couple of decades they ruled – huge pieces of furniture with built-in speakers, receiver and record changer, and often, a TV in the centre. Some fancier ones even featured inboard open-reel tape decks.

Sources of pride and joy (and consternation, when tubes failed or a stylus broke), consoles packed a lot of expensive electro-mechanical technology into heavy cabinets – and servicing difficulties may have been a primary reason why they went out of fashion. Even so, consoles have long stood as icons of mid-century cool.

HIPSTER HI-FI

For years I've heard discussions at audio shows about their potential resurgence – such as incorporating wireless technology and mechanisms to raise and lower flat-panel TVs from the back of the cabinet. I've seen a couple of custom-made pieces that did exactly that, and have gutted and rebuilt a couple of old consoles with new components – minus the TV lift. Until last summer, I never knew that anyone was actually in the business of making new ones.

ABOVE: Under the lid of the $11,999 M1 console is a turntable with a 9in VPI tonearm

RIGHT: The M1 is Wrensilva's flagship console and offers Sonos Wi-Fi along with Bluetooth wireless capability. For more on the company's range see *www.wrensilva.com*

San Diego-based Wrensilva is doing just that, making audio consoles for a new generation of hipsters and is said to have a workforce of some 30 artisans toiling ceaselessly to meet demand. To my knowledge, it's the only company in California making such products – there may be others, but a Google search of any combination of 'Bluetooth', 'audio,' 'home entertainment', and 'console' brings up tons of links to media furniture, but none for the sort of products that are made by Wrensilva.

Perhaps companies have decided to conserve cash by not paying for Google placement, but it's encouraging to learn that the millennial aesthetic is being served by at least one visionary enterprise. People of all ages love music as much as they ever have, but for what is now a significant swath of the population, towering speakers and mammoth amps are as uncool as shag carpeting and plaid wallpaper.

Why the larger audio industry hasn't grasped this fundamental fact is an ongoing mystery. Instead, we keep pushing the upper limits of what the market will take. How else to explain the proliferation of audio components bearing six-figure price tags aimed at a market that is continually diminishing?

> 'Consoles have long stood as icons of mid-century cool'

Wrensilva 'Club Series' consoles are available in three tiers: the entry-level 'Loft' model at US$5k, 'The Standard' at US$9k, and the top-of-the-line 'M1' at US$12k. All feature inboard turntables, Sonos Wi-Fi, and Bluetooth wireless capability. Upscale models also feature 3.5mm input sockets and two sets of RCA sockets for hardwired sources.

The website doesn't specify speaker design, amplification, or whose turntable is used in the consoles, nor does it address the potential acoustic feedback problem of putting loudspeakers and turntable in one cabinet. Generally a recipe for sonic disaster, this is something you can prove to yourself by placing your turntable atop a loudspeaker and turning up the volume. If Wrensilva has a fix for this, it isn't mentioned on its site.

NEEDS MUST

While this column is neither a review nor endorsement of Wrensilva products – I've not experienced any of them – it is an endorsement of the concept that manufacturers succeed by making things that people actually want, especially in a down economy. It's a lesson the audio industry could learn from.

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Adam Smith
Hi-fi reviewer
Electronics engineer, music lover and former loudspeaker designer, Adam Smith is known to dabble with all audio formats, but is a committed vinyl fan at heart

Sounds of celebration

Adam Smith's sonic surroundings came alive with birthday bunting this year as a bounty of anniversary analogue products brought a series of new highs. But first those LP sales figures...

Earlier this year the BPI published its analysis of the 2021 UK vinyl market (*www.bpi.co.uk/news-analysis*) and once again it appears that the good old LP is gaining ground, year on year. Sales in 2021 reached 5.3 million units, up 10.6% over 2020. What's more, nearly 43% of these sales were of new albums released that calendar year, which compares with 30% in 2020. So it's not just older folk on a nostalgia trip, buying LPs that were originally released in their youth.

That said, catalogue titles (defined as LPs released before 2019) still made up 51.6% of all sales, and one of the top purchases was Fleetwood Mac's *Rumours*. So there's still a hankering for material from the heyday of vinyl.

SMALL BEER

Perhaps more striking is that the BPI's data shows that CD sales still remained ahead of those of vinyl in 2021. No surprise there, but looking forward the organisation suggests that by the end of 2022, vinyl will have overtaken CD to become the dominant physical music format once more. It's enough to make you feel almost sorry for the old 'silver beermat', which celebrated its 40th anniversary this year [see p147].

The numbers are more impressive in the US. Mid-year data for 2022 from Luminate (*www.luminatedata.com*) shows that while vinyl sales only grew a relatively small 1% compared to last year, the overall sales so far of 19.4 million already surpasses the figure for CD, which is 16.9 million. This means the latter figure marks a drop in sales of nearly 11% for CD compared to those in 2021.

ABOVE: Clearaudio's Professional Power 24V PSU works with Innovation and Ovation decks

RIGHT: Nagra celebrated its 70th anniversary in 2022 with the Reference Anniversary turntable. It uses decoupled, brushless DC motors, a belt-drive system inspired by that of the Nagra IV-S tape machine, and features a one-piece 10.5in tonearm

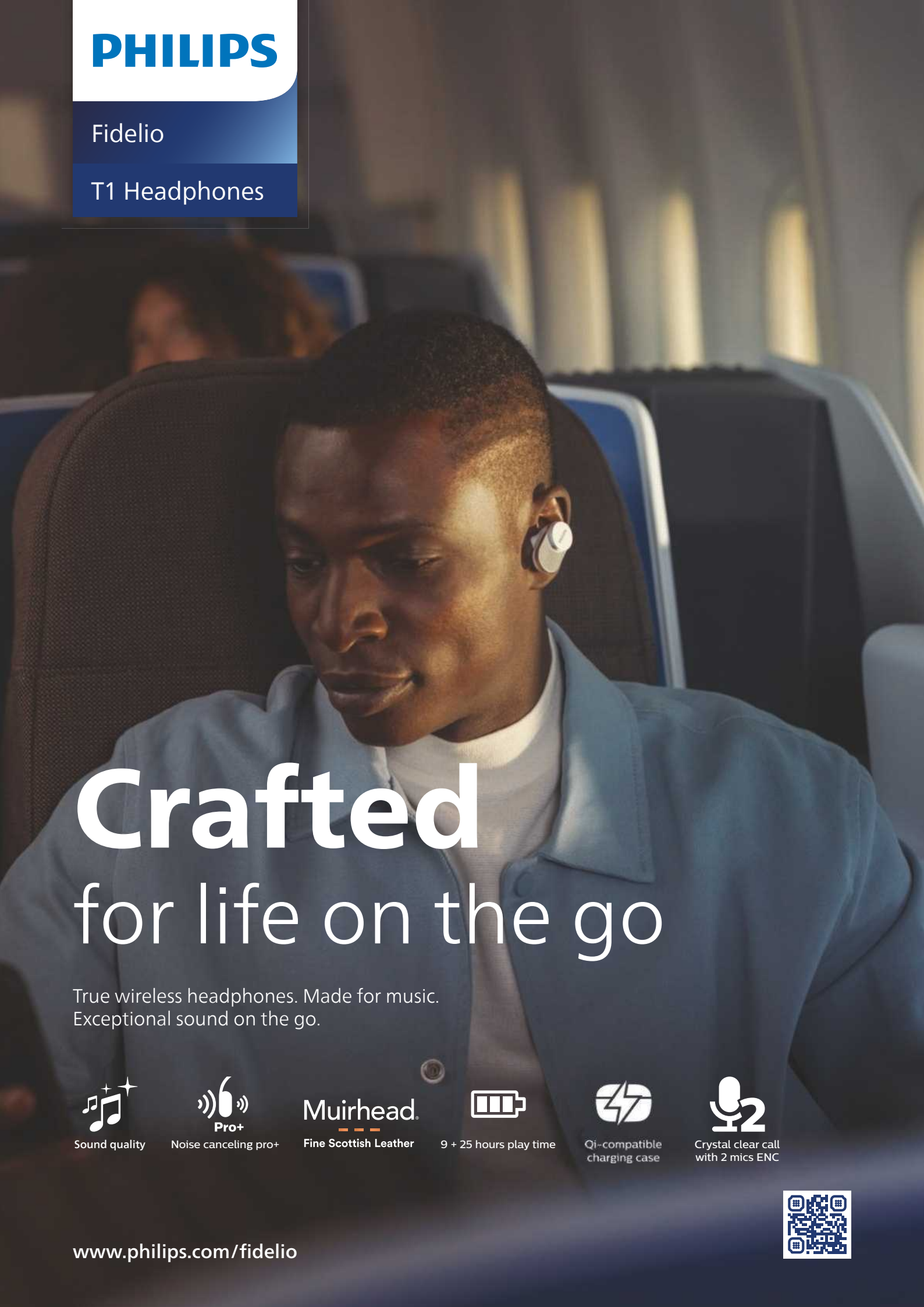
When it came to vinyl hardware, I confess to having been spoilt in the last year, mainly thanks to a succession of 'birthday' releases. The Reference Jubilee turntable [see p32] was launched to celebrate Clearaudio's 40th anniversary and it turned out to be a formidable deck. Perhaps even more fascinatingly, it showed that an ostensibly simple unit like a humble 24V PSU can transform the performance of a turntable. Clearaudio's Professional Power 24V PSU, supplied with the Reference Jubilee, will also work with many of its older decks. If I owned an Innovation [*HFN* Oct '16] or Ovation [*HFN* Feb '13], I'd be heading to my dealer to check compatibility. The differences it makes are striking.

> 'A humble PSU transformed the turntable's performance'

Another anniversary was celebrated by Nagra, which has been making precision Swiss loveliness for 70 years. I don't think I'm giving the game away by revealing that its big birthday present to itself was its first ever turntable – the Reference Anniversary. This is limited to 70 units and dealers in the UK, at least, are already showing the deck as 'out of stock'. Fortunately, the company's Classic Phono stage [see p49] has no such sales restrictions, and is a wonderful unit.

A NEW KING

However, the highlight of my vinyl year came about as a result of a 60th birthday. The company in question is SME and the product is the Model 60 turntable [see p39]. Even I wasn't prepared for just how good this relatively compact and unassuming-looking turntable was going to be. I have long felt that any good deck from a few hundred pounds upwards can show how enjoyable records can be, but we vinyl fans live for those rare moments when a component lifts the performance to something approaching magical. The Model 60 did it like no other deck I have heard and, to my mind, is the current pinnacle of turntable design.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Andrew Everard
Reviewer/writer
Andrew Everard has reviewed consumer electronics for over 30 years and is still effortlessly enthusiastic about new developments, discovering new kit – and music

Two's company

After a year that's seen attempts to change the musical landscape to surround us with sound, **Andrew Everard**'s even more convinced two-channel stereo will do him very nicely, thank you

We've been here before. Back in my early days of buying LPs, there was no shortage of content allegedly in stereo, but actually converted from mono seemingly not so much with a knife and fork as a pickaxe and kango hammer, so clumsy was the panning of sounds to extreme left or right, leaving a gaping hole in the middle of the soundstage. Two-channel, maybe, but emphatically not stereo.

And don't even get me started on Hollywood's decision to 'colorize' black and white greats with a wash of swimmy hues not always in sync with the pictures, and a strange, soulless 'made for video' look far from the work of masterful cinematographers. *Casablanca* in colour? Here's not looking at you, kid…

SPATIAL FORCES

And now it seems the reinvention game's come around again, with the trend towards reprocessing music into 'Spatial Sound', to be delivered either via headphones via some tricksy DSP, or through a multichannel Dolby Atmos speaker system. Now I'm not averse to the whole idea of surround sound – I have a 7.1-channel system, but I'm not actually sure when last I used it – and there are some exceptional 'made in surround' releases from the likes of Norwegian record label 2L, which is a master of this stuff.

What's more, I'm all for sensitive reimagining of old recordings, such as the recent Beatles remixes, which are designed to create a more convincing soundstage than the original 'guitars on the left, vocals on the right' stereo releases. But let's just keep it so the way they were first heard is preserved, for those of us who want to hear them that way, and not spend too much time 'improving' on the classics. After all, some of us will want to enjoy a classic as created, not through the lens of the latest tech, seemingly just for the sake of it.

> 'Let's not spend time "improving" the classics'

Fortunately, this past year of listening has shown that two-channel has much to give, and can immerse you in a fine recording as nothing else is able to do. Listening, for example, to the magical, if bonkers-looking, PS Audio aspen FR30 speakers [see p107], proved just such an immersive experience, as did the rather more affordable Paradigm Founder 120H loudspeakers [see p105], and indeed the wonderful KEF Blade One Meta floorstanders [see p101], all of which passed my 'disappearance' test with flying colours. Yes, it may seem strange to speak of designs as imposing as this vanishing, but that's what they do – at least in sonic terms – to leave nothing more than a sense of the music hanging in free space before the listener. That's the kind of three-dimensional experience I crave, and that's just what these designs deliver.

And while I don't subscribe to the thinking that smaller speakers have definition and detail that eludes their larger stablemates – give me the visceral punch of a big 'un driven well any day! – I had to admit that some of the more compact designs I enjoyed over the past 12 months hit the mark. Canton's Reference 9K [*HFN* Aug '22] is a small design with a big heart and the wherewithal to have serious fun, while the outlandish 'heavy metal' AVID Reference Three speakers [*HFN* Nov '22] more than lived up to their somewhat scary pricing with their fabulous detail and musical involvement.

SHUTTERSTOCK.COM

RIGHT: Surround sound for music, while being promoted again, is nothing new. But can it ever involve the listener to the extent that a great two-channel recording played on a fine stereo system is able to?

MUSIC BOXES

However, while I've been fortunate enough to listen to some equipment of late with prices well beyond my means – you just have to consider the sound, and adopt a 'for those who can afford it' view of the pricing – that's not say I've become spoiled for the way that much more affordable equipment is capable of communicating music. I'm still a great fan of what iFi Audio manages to do on very sensible budgets, have a real soft-spot for the Cambridge Audio EVO systems [see p73], and find much to like in what Marantz is doing with its 30 Series separates – a range that's growing ever more convincing as it expands.

But the best thing is that each new delivery of cardboard boxes can more or less be guaranteed to contain something to delight – and having been reviewing hi-fi for well over three decades, those discoveries are what keep me going.

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Peter Quantrill
Music Journalist
Peter Quantrill has been writing about music for magazines and record labels for 30 years. When not hunched over a CD player, he'll be at a concert, or the cricket

Full stream ahead?

Peter Quantrill reckons this year has shown that when it comes to keeping up with the world's great orchestras and conductors, streaming services are crucial. So what's the future for CD?

Reported sales figures indicate a bounce for CD. Perhaps it's a long-tail effect of the pandemic, now that working from home affords listeners more time to spend with their cherished kit. Either way, it's good news for those of us who love listening to music – and also write about it.

The monthly page of reviews – and I always leave out with regret at least twice as many albums as I include – inevitably mirrors my own enthusiasms for 'early' polyphony, fire-in-a-petshop modernism and the symphonic canon, among others. Even so, my own taste cannot pretend to be as catholic as *HFN*'s collective readership. Would I have turned my attention to the latest Bartoli and Netrebko offerings had I not felt a responsibility towards readers who get more from strings of opera arias than I do? Probably not, but I'm glad I did.

ABOVE: Marquee.tv – 'the Neflix of the arts' – can be found at *www.marquee.tv* and (right) Russian conductor Kirill Garrievich Petrenko of the Berlin Philharmonic, pictured in August 2019

DIGITAL CONCERT HALLS

However, CD is now just one among many media. What's more, one of the many long-term effects of the pandemic upon cultural life has been the proliferation of platforms for listening to and watching music. The Berlin Philharmonic showed remarkable foresight ten years ago in launching its own Digital Concert Hall. Then in 2018 it elected a Music Director, Kirill Petrenko, with next to no profile beyond central Europe and no interest at all in playing the media game. And yet, the orchestra's global reach and reputation has never been higher.

> 'I hop across platforms like a music-hungry Mario'

Its two BBC Proms were highlights of the season, cheered to the rafters by a packed Albert Hall, even while many in the audience will own not a single BPO album made in the last decade. Petrenko's Mahler 7 is an instant classic, encompassing the symphony's schmaltz as much as its edgy modernism – but it was made in Munich, not Berlin.

Anyone who likes to keep their finger on the pulse of the world's great orchestras and conductors can no longer rely on new-release lists, radio shows and record-label adverts. Beyond the DCH, *marquee.tv* covers recent concerts of the LPO and the LSO. Then there's *medici.tv*, which is essential for major competitions and festivals. *Arte.tv* covers an unrivalled range of European concerts and music documentaries. All bar the last charge monthly membership fees, as well they might: we are slowly passing the first age of the Internet when we expected to get everything for nothing.

Every now and then I check in with Evil Penguin: not my dark overlord but a Belgian classical platform. It streams Herreweghe's Monteverdi, at home in Ghent, and Beethoven from Brussels, for a monthly fee. It also makes CDs that fly under the radar: radical choral albums of Poulenc and Brahms directed by Herve Niquet, formerly a bad boy of early music; Weinberg and Schubert from Pieter Wispelwey, reinventing both himself and the cello repertoire. If you want to stick a finger in the wind and predict the direction of the classical industry over the next few years, try Evil Penguin.

OLD-FASHIONED VALUES

All the same, hopping from platform to platform as I do like a music-hungry Mario, the undoubted record of the year for me was Mitsuko Uchida's Decca album of the *Diabelli Variations* [see p174]. I don't often hear a piece of canon repertoire and so quickly reflect, has this ever been better done? The question prompted the answer, supplied by listening back to landmark recordings from Yudina to Kovacevich to Levit: differently, yes, but not better.

A studio recording issued by a 'major' label on a full-price CD, made over several days on a painstakingly conditioned Steinway in the superb acoustic of the Snape Maltings... Uchida's *Diabellis* present the strongest possible argument for the continued life and health of the classical record industry, somewhat as we all understood the term 40 years ago. Better still, her recording insists that Beethoven still matters.

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Tim Jarman
Electronics Engineer
Tim Jarman has been repairing and collecting vintage hi-fi for over 20 years. He is an authority on both classic B&O equipment and the Sony Walkman series

Four decades of the CD

For our connoisseur of the classics there could only have been one event to have put a glint in his eye and that was the 40th anniversary of the silver disc. **Tim Jarman** explains its significance

The past year marked a number of anniversaries in what was the final development of a format that has proved to be quite unlike any that has come our way since. This was because it was not only a technical event but a cultural one too.

In fact it seemed everyone at the time – not just the audiophile fraternity – was aware this new format would not only sound better than those currently available but would also be simpler to use. Yet what perhaps caught the imagination of music lovers the most was the promise it would continue to work even if it became sullied or scratched.

RIGHT: Some of the original documents that formed part of Philips' launch pack when it introduced the CD system in 1983. Note the life-size cardboard 'cut out and keep' CD (bottom left), which was included because no-one had ever seen a real disc in the wild...

OVER THE RAINBOW

I'm talking, of course, about Compact Disc. Both discs and players were already in pilot production by the autumn of 1982, well ahead of their UK launch, which took place on the 24th of February 1983. Yet even with the LP nearing the end of its life as a mass market format, the success of the CD was by no means assured.

The public had been shown gleaming rainbow-coloured discs before, mostly as carriers of pre-recorded films. Despite some impressive technology, consumers failed to warm to them, costing the industry colossal sums in wasted investments. The LP's successor was set to be based around one of these, probably containing analogue FM-encoded multichannel sound on a still fragile 12in disc. One such format was proposed by JVC. Dubbed AHD (Audio High Density), it would have probably have ended up gathering dust on the shelves of frustrated dealers had its launch not been cancelled.

What made the CD a marketable proposition was that it addressed and eliminated the shortcomings of vinyl. The problem of wear was solved by sealing the information inside the disc and reading it with light, meaning there was no mechanical contact. The problem of speed stability was overcome by separating the reading of the disc and the decoding of the signals by passing all the data through a high-speed memory, isolating the rotation of the motor from the rate at which the music was being reconstructed.

> 'I use a Philips CD100 player from 1983 in my system'

Then there was the fact that the outstanding noise performance of CD was not simply due to the use of digital recording techniques. Rather, it was the inclusion of multi-level error correction strategies that could identify and replace missing data. This was something not even the computer industry was fully implementing at the time.

Add to this an effective track-search system, a long playing time with no need to turn the disc over, no need to worry about speed or disc sizes and you had a system that had all the makings of a winner. The public loved it. Even at first, when the equipment and discs were expensive, the industry could sell everything it made. Within three years the price of a good quality basic player had halved from £500 to £250, despite the fact that the technology inside was still off the scale for a consumer product. After all, no home computer of the period could match the number-crunching power of a CD player's decoder, interpolating and error correcting systems.

REAL MUSIC

Even as it celebrates its 40th anniversary the CD has lost none of its relevance. The early players, free of plastic wood and chintzy chrome, still look the part while soundwise there is still little to complain about. After all, most people are content to listen to music at a quality far less than that offered by CD. While a home computer from 1983 is now little more than an unusable curiosity, a good CD player from the same year is still capable of making real music which, after all, is the intrinsic goal of all hi-fi.

I use a Philips CD100 [*HFN* Oct '11] player from 1983 in my system and there it will remain until I find something more compelling. Here's hoping this happens sometime in the next 40 years.

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Mark Craven
Contributing Editor
Mark Craven has been editor of *Hi-Fi News*' sister title *Home Cinema Choice* for nearly a decade and has a passion for music, film and everything in between

Remake and remodel

It was a year that saw **Mark Craven** celebrating hi-fi's constant evolution, as new marques made waves and pedigree brands were re-born. But there's one particular player he'd love resurrected

If *Top Gun Maverick* was the film of the year, then the messy, overlong *Jurassic World Dominion* certainly wasn't. Yet this dinosaur adventure did at least bring Jeff Goldblum's zany character Dr Ian Malcolm back, along with his talk about chaos theory and the 'unpredictability of complex systems'.

To hi-fi then, and its unpredictability. I had various ideas as to what might happen in 2022, but none of them included Pink Floyd reappearing with one-off single 'Hey Hey Rise Up', or both Dolly Parton and Lionel Richie being inducted into the Rock & Roll Hall of Fame. More importantly, as regards the actual business of listening to music at home, I didn't think I'd finish the year raving to friends about the loudspeakers from a brand that seemed to arrive out of nowhere fully formed.

THE REAL DEAL

I receive a lot of press release emails, many unrelated to the worlds of hi-fi and AV, and many solely targeted at American journalists. So when an announcement arrived in 2021 of a new brand, Perlisten, boasting of THX-certified loudspeakers and subs, I didn't expect much to come of it. Skip forward to early 2022 and it transpired that the company was the real deal; certainly not just the latest 'start-up' trying to shift a few boxes. UK distribution was put in place, and soon I was listening to – and loving – the S7t floorstander [p106].

The exciting thing about Perlisten for me, beyond the performance of its hardware, is its overall approach. CEO Dan Roemer has made himself available to expand on the engineering detail behind its products, including the rather natty DPC driver array found across the S and R series speakers.

RIGHT: A pair of Perlisten S7t loudspeakers flank the company's D215s subwoofer. The S7t uses four 180mm TPCD woofers with their distinctive chequered-finish and a proprietary mid/treble DPC array. The D215s sub packs a claimed 3kW amp driving dual 380mm bass units

Listed specifications are comprehensive, joined by data sheets describing frequency response and directivity. Some brands seem keen to shroud their tech in secrecy, so this openness is refreshing. Additionally, Perlisten's speakers look cool and its subwoofers make a right racket – in the best possible sense…

There was more unpredictability this year from across the North Sea, where Swedish manufacturer Primare – for a while now a flag-waver for sleek, slick two-channel hardware – unleashed its A35.8 multichannel power amp [see p91]. Purely with my AV hat on this was a head-turner, as new such models (in this case, an eight-channel design) don't land that often. Then you discover Primare designed it with stereo use in mind, bridgeable modules allowing a high-power four-channel output perfect for bi-amping, and it becomes clear why it scooped the EISA 2022-2023 'Power Amplifier' award combined between both Hi-Fi and Home Theatre Expert Groups.

> 'Have traditional "hi-fi" companies spotted a gap in the market?'

Coming soon is another multichannel power amplifier – the M6x 250.7 from Musical Fidelity, which perhaps suggests traditional 'hi-fi' marques have spotted a gap in the market. And who can blame them, considering once-established brands Onkyo and Pioneer have disappeared from view following ownership/distribution changes at the end of the last decade?

But! Both those companies are now back in action in the UK and Europe, following their acquisition by VOXX International (also owner of Klipsch, Jamo and Magnat). This is something else I didn't see coming in 2022.

UNIVERSALLY WELCOMED

The talk from VOXX's subsidiary Premium Audio Company is of there being 'a variety of A/V and stereo receivers, amplifiers and hi-fi components' on the way, with production under a joint venture with Japanese giant Sharp.

It all sounds rather exciting, but I will probably be most happy if the new ownership results in a resurrection of Pioneer's UDP-LX800 universal player, which was last seen on shop shelves in 2019. Built like the proverbial battleship and able to spin silver discs including SACD, DVD-A and 4K Blu-ray, as far as players went it was the *Top Gun*.

ORIGIN LIVE

“ This was by far the best analogue upgrade I’ve made in the last decade.”

- AV Audio Editor July 2021
ENTERPRISE REVIEW

You might be sceptical that a tonearm could tranform your system, but the editor of Av Audio found that the Enterprise Mk4 tonearm made more difference to his system than anything else. More difference than many other outstanding analogue products, including a world renowned £17,000 phono stage and £8000 cartridge.

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“So far ahead of the pack... looks about to lap them... first choice for those looking for ultra musical LP performance.”
– Stereo Times

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– 6 Moons

“Design of the decade.”
– HI FI World

CONQUEROR TONEARM

Tonearm of the Year Award
– HI FI World

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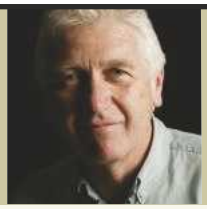

Steve Harris
Contributor
Steve Harris edited *Hi-Fi News* between 1986 and 2005. He loves jazz, blues music, vinyl and vintage hi-fi and anything that makes good music come to life

Running up those sales

Steve Harris finds himself pondering the popularity of old versus new songs after a Netflix sci-fi series released earlier this year resulted in a single from the 1980s rising to the top of the charts

It's been a cataclysmic 12 months. But Netflix devotees under the age of 50 or so may take comfort in remembering 2022 as the year they finally discovered Kate Bush. In June, the British singer's 'Running Up That Hill' unexpectedly reached the top of the UK singles chart after featuring in the Netflix drama series *Stranger Things*.

The song was originally released in 1985 as the opening track on Bush's *Hounds Of Love*, and as a single. The album went on to top the charts for three weeks, while 'Running Up That Hill' reached No 3 in the singles chart.

Only 37 years later would it actually get to No 1. It made the top spot when, at EMI's request, the Official Charts Company waived the rule it had introduced in 2017 to stop songs staying in the charts too long, and to prevent older songs keeping new ones out.

ABOVE: The Kate Bush single 'Running Up That Hill' was released in August 1985 as the lead single from her *Hounds of Love* album (left) and (right) Adele's album *30* from November 2021

TROUBLE DOWNSTREAM

Streaming has been included in the OCC's increasingly complex and ever-changing chart calculations since 2014. For singles, 100 paid-for streams (or 600 free streams from ad-supported sites) are currently equivalent to one sale. This is called the Standard Chart Ratio, or SCR. In 2016, with streaming now dominant, the charts were stagnating. Ed Sheeran's album *Divide* brought things almost to a standstill when his singles took 16 places out of the Top 20, so the OCC ruled that no artist could have more than three songs in the Top 100 at once.

> 'Dealers started adding £100 to the price of *Hounds Of Love*'

And to get the charts moving, the OCC brought in the Accelerated Chart Ratio, currently 200 paid-for streams (or 1200 ad-funded). ACR starts to apply instead of SCR after a song has been in the charts for nine weeks and its streams have declined faster than the chart average for three weeks. So 'Accelerated Decline' helps to boot songs out of the charts quickly, to make way for new entrants.

But there can be exceptions. The rules allow an automatic reset from ACR to SCR if the song starts to sell faster again, or a manual reset 'in exceptional circumstances, where a track is scheduled for promotion', if this is requested by the record company and approved by the OCC.

This is what happened with 'Running Up That Hill', which as Chart Watch UK's James Masterton told *The Guardian*, 'has become a genuine sustained smash hit, and for that reason it is appropriate the rules are waived so it joins contemporary releases on a level playing field'.

For the week ending the 23rd of June, the ACR waiver allowed Kate Bush to replace Harry Styles's 'As It Was' which had been at No 1 for nine weeks. After three weeks, though, ACR did kick in and Kate slipped to No 3 behind LF System and Harry Styles (who'd now escaped ACR thanks to touring). As a side effect, online dealers selling original 1985 vinyl copies of *Hounds Of Love* started adding £100 or more to their price tags.

And whether albums or singles, there's nothing new about oldies outselling new music. In the USA, reissues overtook new albums for the first time in 2015, according to the annual Nelson report. Catalogue albums, defined as any release over 18 months old, had sold 122.8m copies while current albums sold 118.5m.

EASY DOES IT

As I mentioned back then [*HFN* Nov '16], *Music Business Worldwide*'s Tim Ingham covered this under the heading 'Even Adele can't stop "old" albums outselling new artist releases'. Adele's *25* accounted for an astonishing 6.3% of total US album sales, or 7.44m units and, as Ingham put it, 'Without her, catalogue albums would have been 11.7m sales clear of their modern day counterparts'.

More recently, in the UK, as Adele was about to score another mega album success with *30*, her single 'Easy On Me' benefited from a 'manual reset' that helped give her a No 1 in October 2021. But she didn't really need it.

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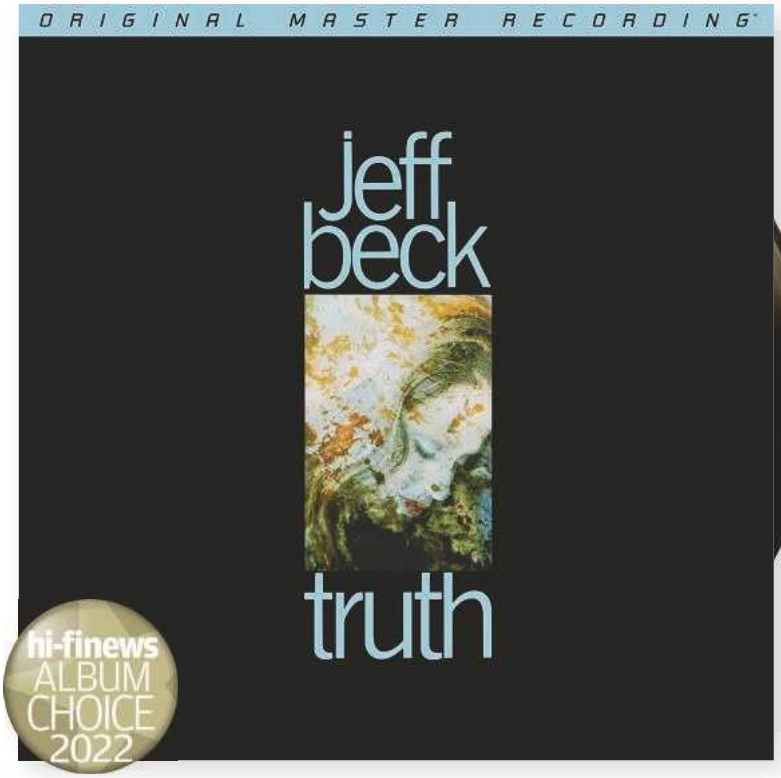


JEFF BECK

Truth

Mobile Fidelity MFSL 2-502 (two 45rpm 180g LPs)

Having played this against a mint original and the SACD which scored 90% and earned 'Disc of the Month' [UDSACD 2223; *HFN* Nov '21], I am stunned: this is the best. Apologies to those who prefer Led Zeppelin's debut released six months later in early 1969, but *Truth* is *the* quintessential guitar god/blues rock touchstone, and one of the most complete albums of all time. Enabling Beck to express even more than already achieved with The Yardbirds were Rod Stewart on vocals, Ron Wood on bass and Mickey Waller on drums. Rod's 'Ol' Man River', 'Shapes Of Things', 'Greensleeves', 'I Ain't Superstitious' and 'You Shook Me'? It doesn't get better than this. Just wait until you hear the bass... *KK*

Sound Quality: 95%

0 - - - - - - - - 100

NILSSON

Son Of Schmilsson

Mobile Fidelity MFSL 2-499 (two 45rpm LPs)

Although the title suggests more of the same relative to its masterpiece predecessor, *Nilsson Schmilsson*, which earned him a Grammy for 'Without You', this will shock anyone lulled into thinking that Nilsson would make so obvious a career move. Instead, it's a challenge to the listener, including those who considered themselves hard-core fans by the time of this, his ninth or tenth LP (depending on which you regard as his first). The material ranges from glorious pop to screeching rock to ballads almost as aching as 'Without You', all served up with panache, energy and a hint of madness. As puzzling as a Zappa LP, and just as rewarding. *KK*

Sound Quality: 95%

0 - - - - - - - - 100

JANIS JOPLIN

Pearl

Mobile Fidelity UD1S-2013 (two One-Step 45rpm LPs)

No excuse needed for this musically: for some, Joplin's last LP may be her finest work, the backing complementing her voice, rather than competing with it as before. Released in January 1971, three months after her death, *Pearl* is so heart-breaking because it leaves us wanting more because it is flawless, even the oddball novelty tune, 'Mercedes Benz'. What's not in question is the sonic power, with the original US pressing of audiophile quality. MoFi reissued *Pearl* as one of the 'normal' 2x45rpm sets and it was hard to imagine how they could improve it. Well, they have, and I am convinced that this is the best-sounding One-Step LP yet. *KK*

Sound Quality: 95%

0 - - - - - - - - 100

CAROLE KING

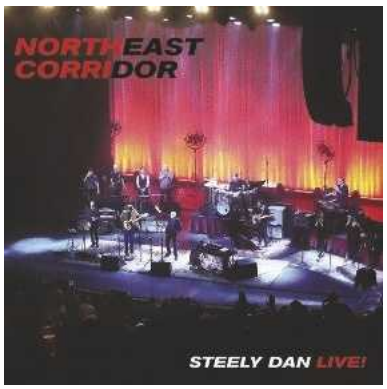
Tapestry

Mobile Fidelity UD1S 2-030 (two One-Step 45rpm LPs)

This is one of those LPs which sold in such eye-watering numbers – over 25 million – that it's hard to find a Boomer audiophile or devotee of singer-songwriters without a copy. Equally, it has been audiophile'd before, so what can the One-Step process add? I have at least five pressings, yet this one ups the ante so much that it rivals the open-reel tape. King's albums are all about vocals, and here her familiar voice sounds so warm and so real that you'll think you've upgraded your speakers. There are so many highlights: the sax on 'Way Over Yonder', the harmonies, the gentle bass... though it's the piano opening to 'You've Got A Friend' that'll steal your heart. *KK*

Sound Quality: 95%

0 - - - - - - - - 100



STEELY DAN

Northeast Corridor – Steely Dan Live!

Universal 02435 93920 (two discs, 180g vinyl)

Two elephants in the room: the first is Steely Dan now means just Donald Fagen. The second is, per live Eagles, playing so note-perfect that it sounds like the studio originals. As for the first, Steely Dan never was a band *per se* save for Becker and Fagen (the notes carry the message 'In Memory of Walter Becker') with ace sidemen hired as needed, while the second isn't necessarily a bad thing. The 12 tracks are culled from the north-eastern leg of the 2019 US tour, but the sound is so uniform that it seems like a single gig – until revealing systems zoom in on each hall's acoustics. A dozen cuts don't cover all the Dan's gems but fans may well find this comforting. *KK*

Sound Quality: 90%

0 - - - - - - - - - 100

ETTA JAMES

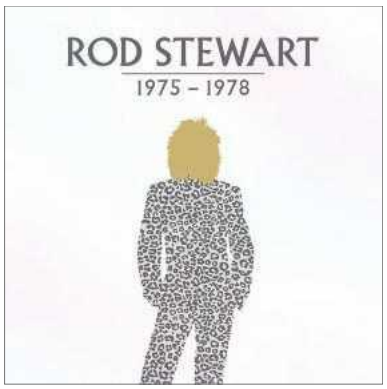
The Montreux Years

Montreux Media/BMG BMGCAT460DLP (two discs; 180g vinyl)

For those of us who cannot get enough of Etta and who rate her as the only soul or R&B singer equal to Aretha, this is an unalloyed gift from the archives of the late Claude Nobs. As with the Nina Simone title in this series [*HFN* Jan '22], the two LPs contain tracks culled from five concerts, this set's dating from 1977-93, and they leave you begging for whole gigs. Many of her stellar tracks are included – 'Tell Mama', 'At Last', 'I'd Rather Go Blind', 'Sunday Kind of Love'… But the shock is the recording quality: whoever mastered this makes it sound like one continuous gig despite the 16-year span. If you didn't see the sleeve, you'd think that's just what it was. *KK*

Sound Quality: 90%

0 - - - - - - - - - 100



ROD STEWART

1975-1978

Warner Records R1 563471 (five 180g vinyl LPs)

Like Elvis, Sir Rod has been around long enough to have a career broken down into Picasso-like periods. Blessedly, this box represents not the recent Las Vegas stint but the dawn of the superstar era. Well into his solo career, he delivered hit after hit and four magnificent LPs in as many years, while making others' songs his own, *eg*, *Atlantic Crossing*'s 'Sailing'. In addition to that gem, the box includes *A Night On The Town*, *Foot Loose & Fancy Free* and *Blondes Have More Fun* (enabling him to take the mickey out of himself). This set is treasure-laden – 'Tonight's The Night', 'Hot Legs', 'The Killing Of Georgie (I and II)', *etc* – but the real gold is found on the *Encores* LP's rarities. *KK*

Sound Quality: 90%

0 - - - - - - - - - 100

MILES DAVIS

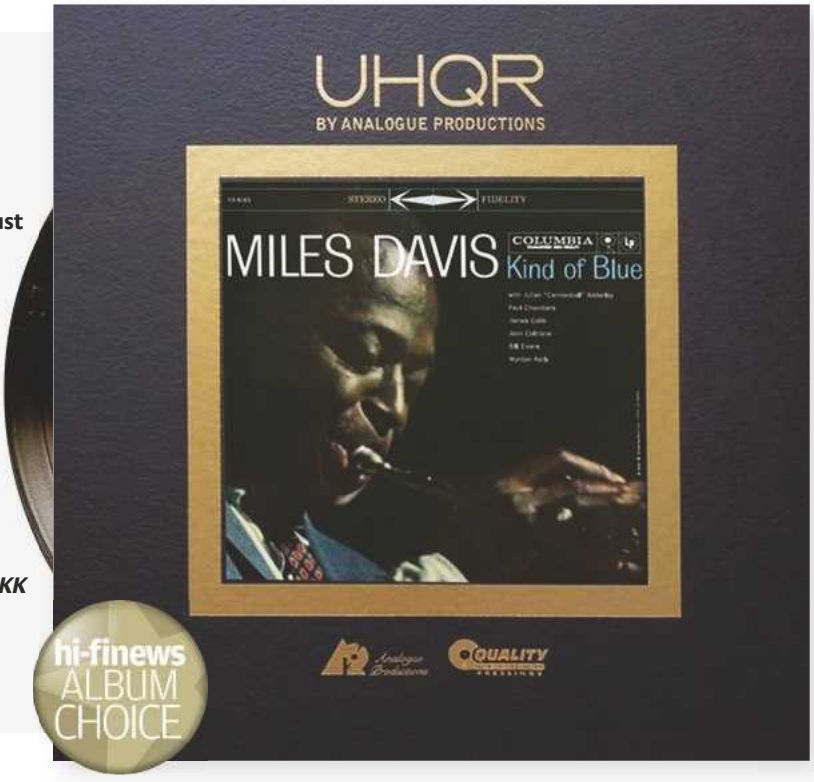
Kind Of Blue

Acoustic Sounds UHQR 0004 (clear vinyl LP)

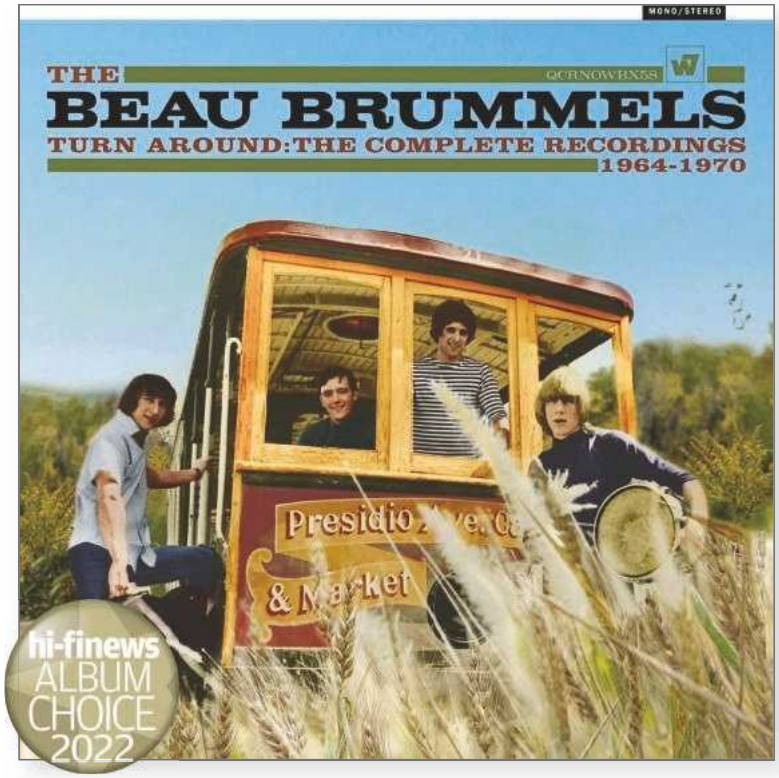
How many copies do you already own of this, the best-selling jazz LP of all time? Normal vinyl? Classic Records? Nimbus? MoFi? We must accept the content is so far beyond analysis that its peerless status is a given: Miles with Coltrane, for goodness' sake! Here are five pieces which ooze such cool that the whole sounds like a score awaiting a film worthy of it. What Acoustic Sounds has created is an edition made with the care usually afforded to a particularly special wine vintage, or an over-priced wristwatch. What matters, though, is inside: a hand-pressed UHQR (Ultra High Quality Record) clear vinyl 33.3rpm LP, which may just knock the 1967 *Casino Royale* soundtrack off its GOAT perch. *KK*

Sound Quality: 95%

0 - - - - - - - - - 100



AUDIOPHILE: DIGITAL



THE BEAU BRUMMELS

Turn Around: The Complete Recordings 1964-1970

Now Sounds OCRNOWBX58 (eight discs)

'Who?' you're thinking, due to no UK chart activity, but San Francisco's Beau Brummels (predating the Dead and the Airplane) were pioneers of folk rock and country rock, though unjustly neglected. If you love either genre, this is an essential acquisition. It kicks off with their finest song, 'Laugh Laugh', its generous 228 tracks expanding on Sundazed's and Rhino's earlier sets. If you're wondering why this peerless example of archival curating, involving many sources, deserves the Sound Quality score below, it does so because it (obviously) contains the whole of country rock masterpieces *Triangle* and *Bradley's Barn*. And just wait until you hear the remastered stereo mixes, the earliest produced by a young Sly Stone. *KK*

Sound Quality: 95%

0 - - - - - - - - - 100

PINK FLOYD

The Dark Side Of The Moon

Analogue Productions PFR24/19075810332

You might wonder why this was March 2022's Album Choice, and with a 95% rating if, like me, you'd rather listen to Paul Young than Pink Floyd. But I rate it without contradiction because this page is mainly about sound quality, not content, and the album, with over 45m copies sold, is regarded as one of the greatest ever, permanently sited near the top of any polls. What Chad Kassem's crew delivers here is arguably the best-sounding digital transfer yet – in both stereo and 5.1 surround – and it even matches MoFi's 1981 UHQR LP for richness. Just ten seconds into 'Money' or 'Time' and you'll click 'Buy Now', whatever your preferred supplier. Astonishing. *KK*

Sound Quality: 95%

0 - - - - - - - - - 100

MICHAEL NESMITH

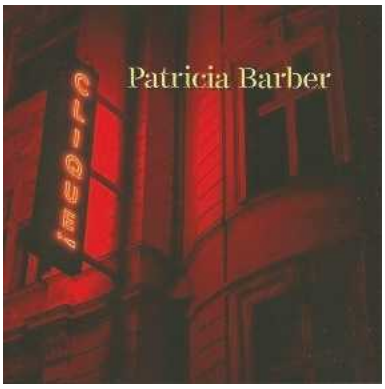
Different Drum: The Lost RCA Victor Recordings

Real Gone Music/RCA RGM-1044

When will the world, rather than a cult, acknowledge ex-Monkee Nesmith as one country rock's *true* pioneers? Those in the know will have worn out their copies of his six RCA albums, which gave us 'Different Drum' for Linda Ronstadt and The Stone Poneys, 'Listen To The Band' and other treasures, all imbued with Red Rhodes' peerless pedal steel guitar. This fabulous collection gives us 22 previously unreleased alternate and uncut takes, instrumentals, and more. With Nesmith having toured with Mickey Dolenz just before his passing in late 2021, it deserves to be heard. Mastered from the original multi-tracks, bliss for both Monkees and country-rock devotees. *KK*

Sound Quality: 95%

0 - - - - - - - - - 100



PATRICIA BARBER

Clique!

Impex Records IMP8323 (SACD 5.1 DXD)

No slouch as a songwriter, but Barber is also a sassy interpreter of material from all manner of genres, with an album devoted to Cole Porter, and covering tracks by The Doors and The Temptations, Gershwin and Miles, and Bobbie Gentry. Twenty years on from *Nightclub*, dealing mainly with the Great American Songbook, comes a sparse-sounding set, Barber backed by bassist Patrick Mulcahy, drummer Jon Deitemyer, guitarist Neal Alger and saxophonist Jim Gailloretto. Recorded during the sessions for *Higher*, it contains gems from Lerner & Loewe, Rodgers & Hammerstein, Monk, Lee Hazlewood and Stevie Wonder, and boasts a sexy 'The In Crowd'. *KK*

Sound Quality: 95%

0 - - - - - - - - - 100

GABRIEL MERVINE
Say Somethin'

Octave Records OCT0005 (stereo SACD + DVD Data)

I'm not suggesting Octave deliberately focuses on music that flatters sound systems, but this delicious trumpet-dominant set is about as audiophilic as it gets. Mervine's horn has accompanied Lonnie Smith, Natalie Cole, The Who, Fred Wesley and Maceo Parker, and others, and the eclecticism is a huge part of this set's appeal. A handful of jazz subgenres are addressed, but the dominant vibe is 1970s/'80s smooth sophistication, delivered through original compositions and a few standards, with a Miles-y version of 'A Foggy Day'. With all respect to Mervine, though, this is about sound quality, *ie*, 'Digital Done Right'. *KK*

Sound Quality: 90%

0 - - - - - - - - - 100

JONI MITCHELL
Archives Volume 2 – The Reprise Years 1968-1971

Rhino R2 653989 (five discs)

This second search through the vaults reaches the time that for many is the mother lode, when Mitchell established herself as a giant among singer-songwriters. Its mainly unreleased contents date from the period when she recorded her first four albums, culminating in *Blue*. The material includes home recordings, partial and entire live concerts, and sessions from the quartet of LPs. Exceptional from start to finish, it is perhaps too esoteric for all but true devotees, but, as with Vol 1, it sets new standards for archival compilations. Treats include rare TV appearances, an entire 1969 Carnegie Hall performance and a BBC broadcast from 1970. *KK*

Sound Quality: 90%

0 - - - - - - - - - 100

JUDEE SILL
Judee Sill

Intervention Records IR-SCD15 (two-channel SACD)

Where did five years go? It was Oct '17 when the 2x45rpm vinyl version of this record scored LP of the Month. Side-by-side comparison will prove a challenge even for those blessed with golden ears, so sweet and warm is the sound of this SACD. To remind you of the genius herein, Sill was a doomed singer-songwriter, beloved of 1960s rock royalty and a muse for everyone from Graham Nash and The Hollies to The Turtles, as well as the equally gifted songwriter, Warren Zevon. Fragile, heart-wrenching, intense: every time I hear this I get sucked further into her artistry, and grow sadder at the loss of what could have been another Joni Mitchell [see left]. *KK*

Sound Quality: 90%

0 - - - - - - - - - 100

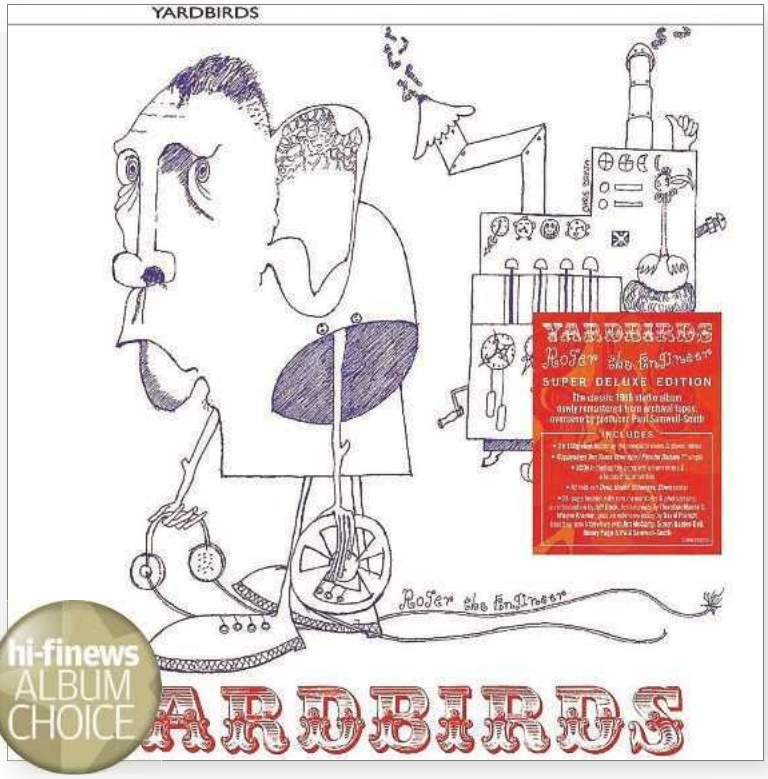
THE YARDBIRDS
Roger The Engineer

Demon DEMRECBOX55 (three CDs, two 2LPs + 45rpm 7in single)

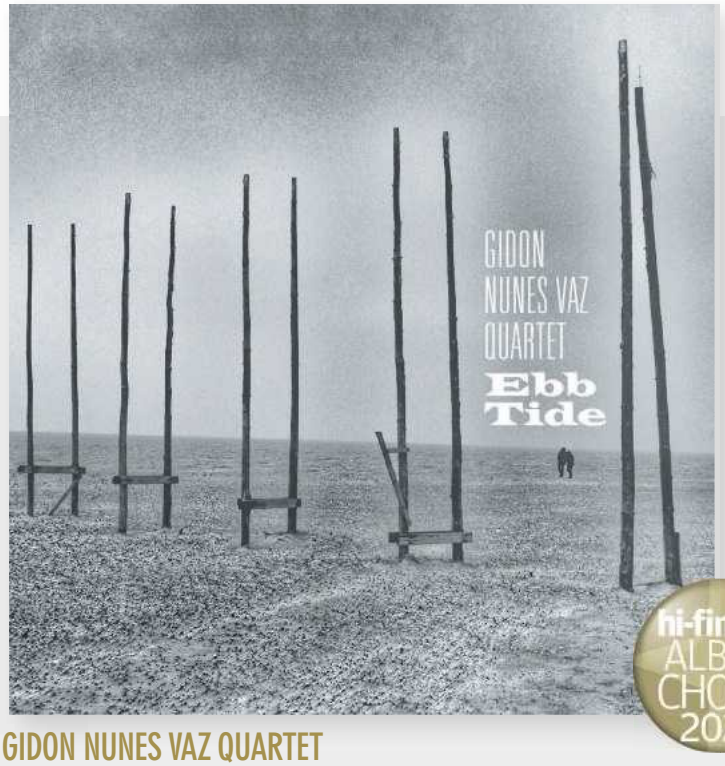
Who knew that one album could yield so many extras? Arguably the definitive display of the band's prowess with Jeff Beck on board: 'Over Under Sideways Down', 'The Nazz Are Blue' and ten more performances to treasure. Here are the mono and stereo mixes on separate CDs and 180g LPs, a 45 of 'Happenings Ten Years Time Ago'/'Psycho Daisies' and a third CD worth the price of the box: 16 tracks including Keith Relf solos, the 'Great Shakes' commercials and a previously unreleased mix of 'Turn Into Earth'. It's as lavish as the recent Kinks and Who sets, with an A2 poster and a 12x12in booklet, the superb notes by celebrated fans. Best of all? The remastering is a revelation even if you have owned a copy since 1966. *KK*

Sound Quality: 95%

0 - - - - - - - - - 100



HI-RES DOWNLOADS



GIDON NUNES VAZ QUARTET

Ebb Tide (DSD64-512; DXD)

www.natived sd.com; Sound Liaison SL1050A

The second album for Sound Liaison by the quartet led by trumpeter/flugelhorn player Gidon Nunes Vaz follows on from 2020's *Embrace Me*, and features the very slick ensemble playing well-loved ballads, from Michel Legrand's 'The Summer Knows' to Rodgers & Hart's 'Bewitched'. Recorded by Sound Liaison's Frans de Rond using the as-live, 'straight to DXD' approach, captured with Josephson microphones, this set has a wonderful immediacy. As on the previous album, the ensemble is on fabulous form, Vaz being joined by Timothy Banchet on piano, bassist Cas Jiskoot and Yoràn Vroom on drums. Here they deliver an easy-going yet captivating sound, with every detail of the contribution of each performer easy to hear thanks to the highly informative mix. But best of all it sounds so *real*, making it a joy to listen to – just sink into the performances and relish every moment! *AE*

Sound Quality: 95%

0 - - - - - - - - - 100

ANDREY GUGNIN

Scriabin: Mazurkas (96kHz/24-bit, FLAC)

www.hyperion-records.co.uk; Hyperion CDA68355

Recorded in the church of St Silas the Martyr in London's Kentish Town, an expansive Edwardian space, this is a glorious set of Scriabin's *Mazurkas*. It ranges in feel from the playful to the dramatic, interpreted with passion by Russian pianist Gugnin on what is clearly a fine-sounding Steinway. Not only is there a wide spectrum of light, shade and tonal colour in the playing, but the recording strikes just the right balance between intimacy in the more delicate passages and giving the instrument space to expand into the rich acoustic when required. It's a wide-open, dramatic sound, with a wonderful freedom that's not only demonstration-quality throughout, but also a captivating listen, rewarding repeated plays as one becomes more familiar with the music – all the better to appreciate the layered nuances of both performance and recording. *AE*

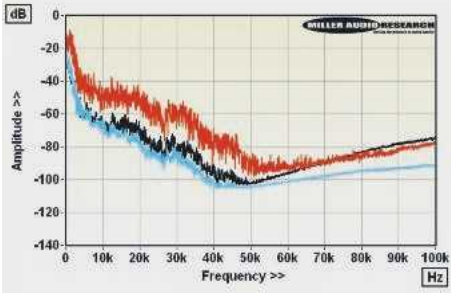
Sound Quality: 95%

0 - - - - - - - - - 100

OUR PROMISE

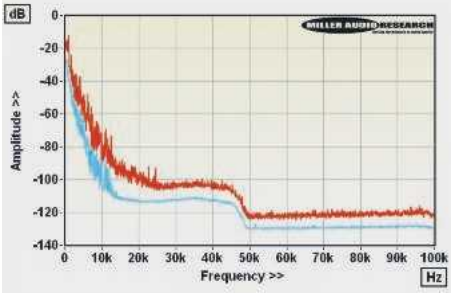
Following our Investigation feature [*HFN* Jun '11] where we examined the claimed quality of 'high-res' downloads, *Hi-Fi News & Record Review* continues to measure the true sample rate and bit-depth of HD music downloads. The Graphs show peak [red] and RMS [blue] spectra. These unique reviews will be a regular source of information for those seeking new and remastered recordings offered at high sample rates and with the promise of delivering the very best sound quality. (Note: an asterisk in the heading denotes a technical reservation – see Lab text). **PM**

LAB REPORT



Recorded in DXD format [peak, red; RMS, blue; DSD120, black] the brass and piano only occupy the first ~8kHz while the percussion feed(s) extend up to ~50kHz, possibly with some processing (~26kHz). Most tracks are capped at –0.5dBFs. PM

LAB REPORT



The ~46kHz bandwidth available to this very clean 96kHz recording is more than sufficient to capture the harmonic scope of the Steinway piano, as is the wide dynamic range. Most trks peak ~–5dBFs, with only trk16 exceeding –1dBFs. PM

THE GESUALDO SIX

Josquin's Legacy (96kHz/24-bit, FLAC)

www.hyperion-records.co.uk; Hyperion CDA68379

Sometimes a recording just grabs the attention with the sheer beauty of both performance and sound, and while this one didn't come completely out of the blue – editor PM had heard the ensemble in concert and recommended it – this latest album from the all-male Gesualdo Six is a stunner. Recorded to the usual Hyperion standards in a reverberant church acoustic – perfect for these pieces, dating from the late 15th/early 16th century – it's focused around the works and legacy of composer and choirmaster Josquin des Prez. Led by Owain Park, the Gesualdo Six evoke the sounds of a bygone age, with soaring countertenor voices rising above the tenors, baritone and bass to quite magical effect, creating a sound as fascinating as it is relaxing and meditative. It's a totally compelling listen, and just about as flawless a performance as you'll ever hear. *AE*

Sound Quality: 95%

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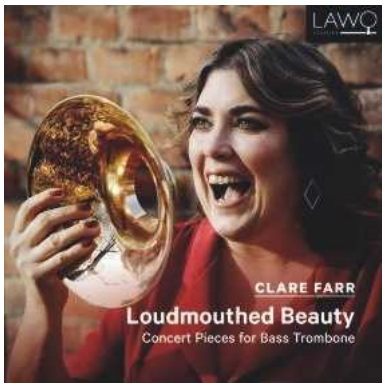

CLARE FARR

Loudmouthed Beauty (DXD 352.8kHz/24-bit, DSD64-512)

www.natived sd.com; Lawo Classics LWC1242

Here's a highly unusual set, as is suggested by the subtitle 'Concert Pieces For Bass Trombone'. Clare Farr is an evangelist for her instrument, and what a sound it makes – captured here at 352.8kHz/24-bit, it delivers sensational low frequency energy and wonderful harmonics. Farr's playing is superb, from sheer brassy punch to the finer nuances. The music is consistently intriguing, including repertoire pieces for bass trombone and works commissioned by Farr, who says her intention was to 'showcase all the best sides of the bass trombone: robust yet fragile, colourful and flexible, juicy bass notes and beautiful melodies'. Here look no further than Ernst Sachse's concerto, the interplay between solo instrument and organ, captured in exquisite detail by producer Vegard Landaas and balance engineer Thomas Wolden. *AE*

Sound Quality: 90%

0 - - - - - - - - - 100

ALICE COOTE & JULIUS DRAKE

Schubert: 21 Songs (96kHz/24-bit, FLAC)

www.hyperion-records.co.uk; Hyperion CDA68169

The simplest recordings are often the trickiest to reproduce – *eg*, we know what speech sounds like, and can instantly tell whether it's 'off'. In the same way, an accompanied voice may seem to present few challenges to a hi-fi system, but some make very heavy weather of it, with that oppressive sense of the ears being 'overdriven' on high notes. Try this recital and you'll know whether your set-up is at fault, for on a fine system it's simply wonderful. From the amour of 'An den Mond' to the lighthearted waltz of 'Sleigkeit' through to the dark ballad 'Der Zwerg', Alice Coote gives an enchanting – often spine-chilling – account of these songs, with masterful accompaniments by Julius Drake. The recording balances the two in a persuasive acoustic while still giving the singer's thrillingly gorgeous voice full range, both dynamic and tonal. *AE*

Sound Quality: 90%

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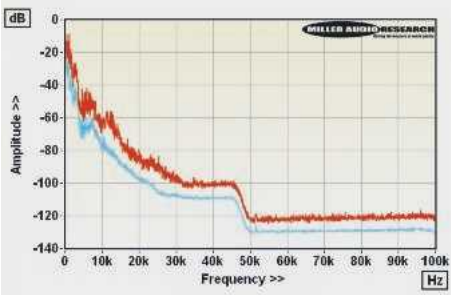
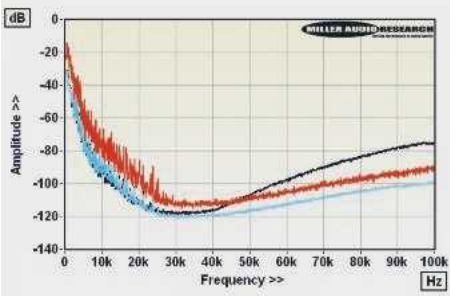
LAB REPORT



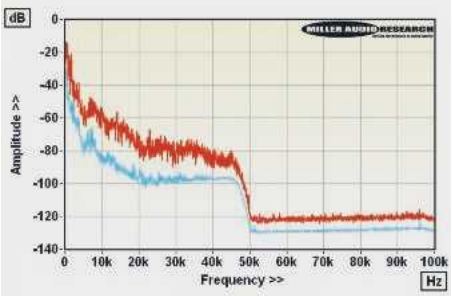
This very clean 96kHz/24-bit Hyperion recording demonstrates the exceptional range of these performers – the counter-tenor harmonics exceeding a 30kHz bandwidth! Dynamic range is excellent with no track exceeding –1dBFs. PM

LAB REPORT



Both the native DXD and resampled DSD [black] renderings have an uncommonly wide dynamic range (peak-to-RMS of ~25dB). The trombone extends over a surprising ~25kHz while the organ's harmonics reach a little further. PM

LAB REPORT



While the 96kHz sample rate provides more than sufficient bandwidth for both Steinway (~14kHz) and mezzo-soprano (~20kHz) there's a hint of 'analogue' ultrasonic noise and/or very mild post-mic distortion [red trace, Graph]. PM

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CARMEN SANDIM

Mini Brazilian Beasts (44.1-352.8kHz/24-bit, FLAC; DSD64-256)

www.psaudio.com/products; Octave Records 0026

There's clearly a thriving music scene in the area around PS Audio's home base in Boulder, Colorado, so strong is the roster of artists it has mustered for its PS Audio label. Pianist Carmen Sandim is a fine example: born in Sao Paolo, Brazil, she now lives in Boulder, and teaches at several universities in the state, as well as being a superb jazz musician. This set, best heard in its stunningly crisp and clear DSD64 form, finds her working with a fine ensemble of musicians to create a collection of tunes that are at once bright and breezy, as in the opening title track, but also darker and more reflective, for example in 'Disturbia Nervosa' or the reflective 'Eventual Ocean' for solo piano. Great musicianship meets a state-of-the-art recording here, finely balancing weight and openness, ambience and focus, to great effect. *AE*

Sound Quality: 90%

0 - - - - - - - - - 100

BONNIE & TAYLOR SIMS

Levelland (DSD64; 44.1-192kHz/24-bit, FLAC)

www.psaudio.com/products; Octave Records 0011

This album by the Texas-born husband and wife duo, now based in Octave's 'more bluegrass-friendly' home state of Colorado, is an absolute delight. As the two say, 'We've been at this for a while', but this acoustic country release, named for the 'very underwhelming town' in Texas where the pair met, and recorded direct to DSD by Gus Skinas in Octave's preferred Animal Lane Studio, sounds entirely fresh and intimate, with every vocal and instrumental nuance readily apparent without being hurled at you in a too 'hi-fi' manner. The Sims play mandolin, guitar and occasionally bass, and their superb harmonies show all the benefits of their extensive history of performing together. The tracklist is mainly self-penned, adding to the freshness of the experience, and the close-up nature of the recording adds enormously to the rather magical 'you are there' experience. *AE*

Sound Quality: 90%

0 - - - - - - - - - 100

DANNY HOLT

Piano Music Of Mike Garson (44.1kHz/24-bit, WAV)

www.innova.mu; Innova Recordings n/a cat no.

Mike Garson is perhaps best-known as a long-time collaborator of David Bowie, for more than four decades after 1972. So it's no surprise that this set includes a 'Tribute To David Bowie'. But Garson is also a prolific composer/performer, and here his works are played by acclaimed pianist Danny Holt, who has a similar 'big piano' approach to Garson, creating a dramatic sound. The two first came together back in 2004, when Garson heard Holt play and decided the pianist was a good fit for his music, going on to produce Holt's *Fast Jump* in 2009. Here the virtuoso playing is a fine match for Garson's big, bold writing, creating a wonderful wash of sound as captivating for the immediacy of the piano as it is in the quality of both writing and performance. Garson draws on a wide range of influences, both classical and beyond, and Holt turns them into a *tour de force. AE*

Sound Quality: 90%

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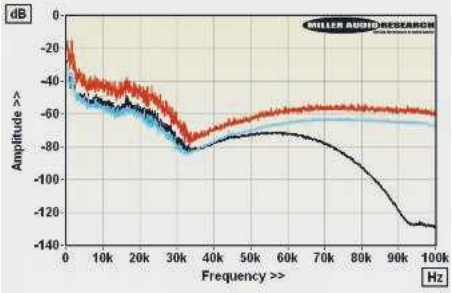
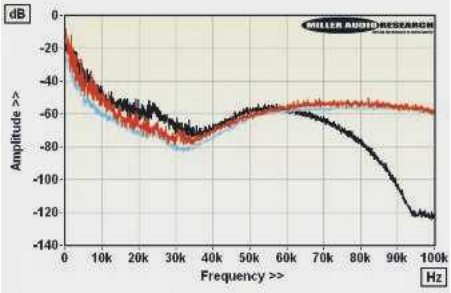
LAB REPORT



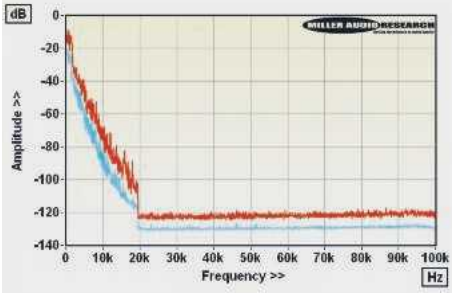
Recorded in DSD64 and offered in upsampled DSD256 and converted 192kHz guises [black trace], the former peak ~4dB lower than the LPCM format but all have moderate audioband and ultrasonic requantisation noise. **PM**

LAB REPORT



Captured live in DSD using Sony and AKG mics, and subsequently mixed in DSD, it's these DSF files that offer the wider dynamic range, none peaking higher than –1.8dBFs. The 192kHz conversions [black] are running 3-4dB 'hotter'. **PM**

LAB REPORT



Offered in 16-bit and 24-bit resolutions, the bandwidth available to the Yamaha piano(s) clips the highest harmonics at ~21kHz, but the dynamic range is generous and headroom well used with no peaks above –1dBFs. **PM**

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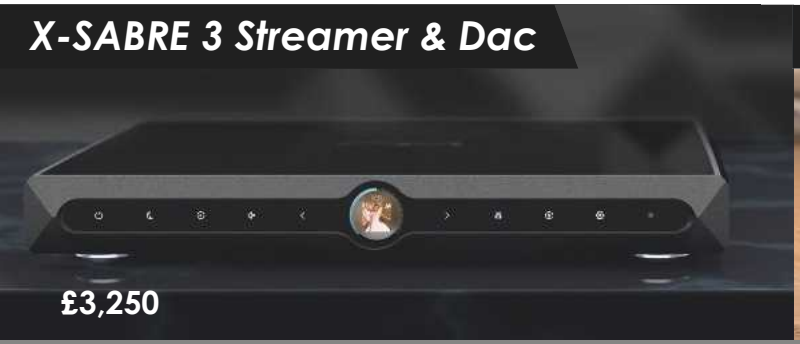

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THOM LAFOND

The Moon Leans In (DSD64; 44.1-192kHz/24-bit, FLAC)

www.psaudio.com/products; Octave Records 0014

This is a wonderfully appealing set by Texas-born singer/songwriter LaFond, also arranger/producer here, drawing on music written over years of touring with his band Banshee Tree. At times simple and lyrical, with LaFond playing solo acoustic numbers, the album easily switches to good-time rockers such as 'Isolation Hymn' then drops back into the charming 'Life As A Sight'. The title track of the album shows the quality of the singer's voice and his songwriting, well served by the close focus of the straight-to-DSD recording at Octave's Animal Lane Studios in Colorado. The label's engineer, Jay Elliott, captures the many facets of LaFond's work, from introspective, emotional soloist to country blues rocker. It's definitely an album to hear and then revisit, as rewarding as it is uplifting, and enjoyable from start to finish, in no small part due to the excellent sound quality! *AE*

Sound Quality: 90%

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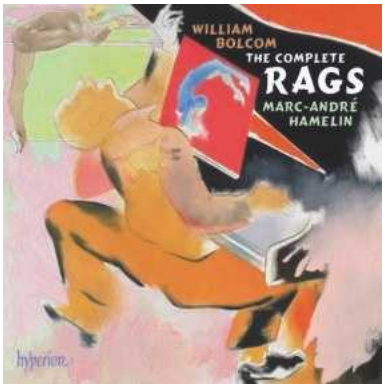

MARC-ANDRÉ HAMELIN

William Bolcom: The Complete Rags (96kHz/24-bit, FLAC)

www.hyperion-records.co.uk; Hyperion CDA68391/2

For many, the fleeting revival of interest in piano rags was centred around Scott Joplin and the use of his music in the 1973 movie *The Sting*, but from the mid '60s for about a decade, composers were discovering Joplin's music and writing their own rags. On this set, pianist Marc-André Hamelin presents the entire output of William Bolcom, written between 1967 and 2015, when the composer revisited the form for a last piece, 'Contentment', which he says he hopes will end his rag addiction! Captured in Mechanics Hall, Worcester, Mass., this comprehensive set is both a fascinating survey of lesser-known works and an exemplary blend of pianism and recording, with the instrument given room to breathe in the spacious acoustic. If, like me, your knowledge begins and ends with Joplin, this will come as a hugely enjoyable surprise. *AE*

Sound Quality: 90%

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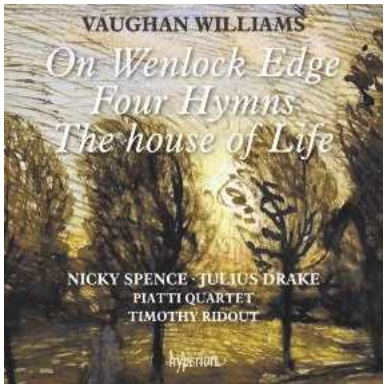

NICKY SPENCE, JULIUS DRAKE, PIATTI QUARTET

Vaughan Williams: On Wenlock Edge (96kHz/24-bit, FLAC)

www.hyperion-records.co.uk; Hyperion CDA68378

This year marks the 150th anniversary of the birth of composer Ralph Vaughan Williams, so this superb release of songs, including the title work, his setting of six poems from A E Housman's *A Shropshire Lad*, is as timely as it is enjoyable. Tenor Nicky Spence's glorious voice, with his purity of tone and expressive connection with the words sung, combines with the piano of estimable accompanist Julius Drake and the strings of the Piatti Quartet to create magical sound pictures from this rich programme, full of drama and lyricism. Lovingly captured by the Hyperion team in one of its familiar London church venues, the set is a joy throughout, full of beautiful performances from all concerned, and transporting the listener to the countryside and its landscapes. Just about perfect. *AE*

Sound Quality: 90%

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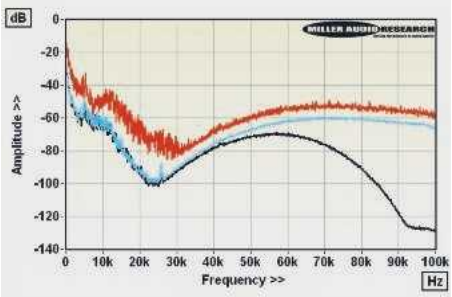
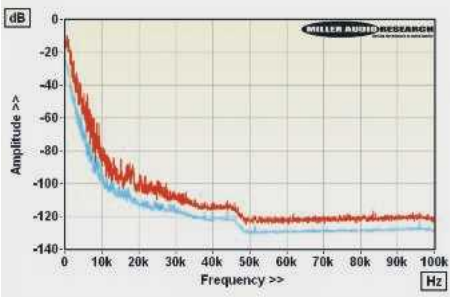
LAB REPORT



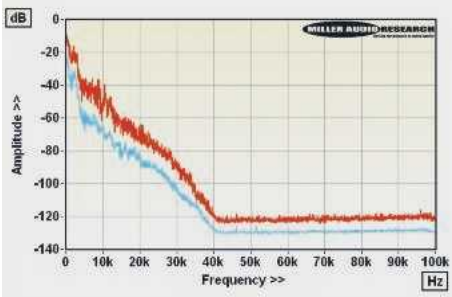
Recorded in DSD64 on a Sonoma 32 track system and mixed on a Studer 963 Console, there's barely the bandwidth to fully capture LaFond's voice and percussion, but dynamic range is good [sl. poorer in 192kHz, black trace]. **PM**

LAB REPORT



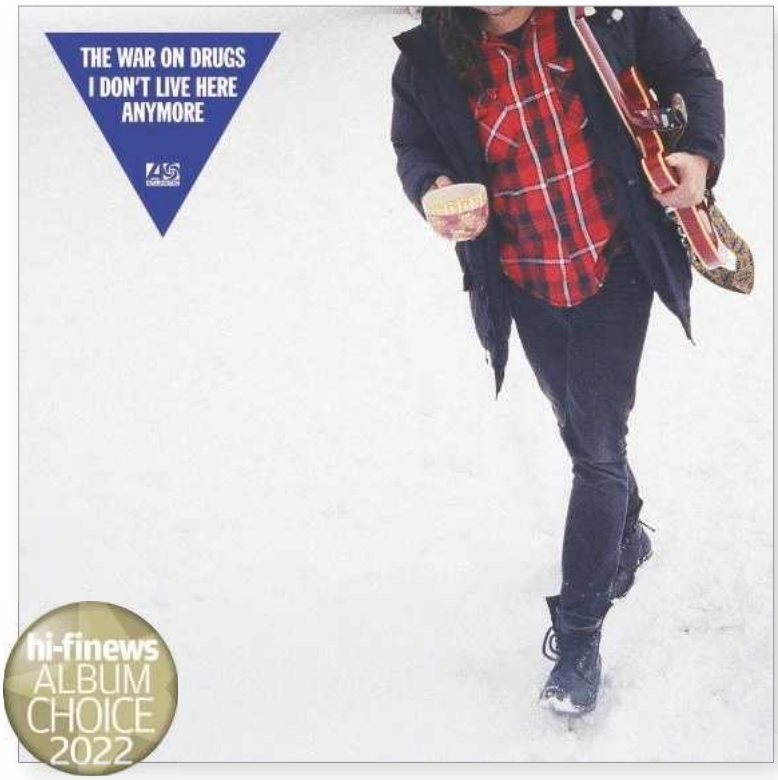
Tracks 8, 10, 15 and 27 hit the 0.0dBFs digital endstops but this 96kHz rendering is otherwise clean and possessed of a wide dynamic range. The ~48kHz bandwidth is more than sufficient for the Steinert & Sons piano. **PM**

LAB REPORT



Peak levels are mastered to –0.3dB of full scale but the 96kHz sample rate is only just sufficient to capture the extended harmonics of the tenor and high strings of the Piatti Quartet! Otherwise this is a genuine and clean 96kHz/24-bit file. **PM**

ROCK



THE WAR ON DRUGS
I Don't Live Here Anymore

Atlantic 0075678642050; LP: 0075678641299

'Maybe I was born in the wrong way, born in the wrong day?', Adam Granduciel ponders on 'Change', willing things to be different over metronomic drums and minor chord changes. It's both poignant and typifies TWOD's ability to surge from intimate to anthemic on their follow-up to 2017's Grammy-winning *A Deeper Understanding*. The music was built up from years of sessions and the circumspect, rueful 'Victim' has a bluesy feel but is full of throbbing electronic pulses and treated instruments. On the title track, over big drums and bolstered by keyboards and female backing vocals, Granduciel reveals an influence, laying a trail of lyrical references to Bob Dylan as he strides towards redemption via 'Desolation Row'. *MB*

Sound Quality: 95%

0 - - - - - - - - - 100

BILLY BRAGG
The Million Things That Never Happened

Cooking Vinyl COOKCD802; LP: COOKLP802

They say the more you learn the less you know. Billy Bragg seems to think so, drolly describing the Internet as 'heroin for autodidacts'. And while he emerged in the '80s playing a pithy, politically charged punk-folk style, now he is more circumspect: 'Lonesome Ocean' finds him searching for resolution, or at least hope. There are country rock flavours and hints of mid '60s electric Dylan, with Bragg's accent veering from Essex to Texas. He criticises heartless libertarianism on 'Freedom Doesn't Come For Free', and offers a positive alternative on the stoic, rough-hewn piano and mellotron ballad 'I Will Be Your Shield': one of his most affecting creations. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

BUZZARD BUZZARD BUZZARD
Backhand Deals

Communion COMM462; LP: COMM464

The young Welsh band were due to support Noel Gallagher at the Royal Albert Hall in 2020; then the pandemic struck. Now, with their debut album, their star is back in the ascendant. Recorded in their own studio, with a vivid live sound, this is a confident statement, full of finely crafted tunes and headed by charismatic singer Tom Rees. 'On The Kill Again' is a gnarly, melodic rocker, but most songs are in an energised power pop style, with roots tapping back to the '70s, to Badfinger and Big Star, and up through Britpop and compatriots Super Furry Animals. Some might say they hark back to the past: in fact they breathe new life into those old forms. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

CAT POWER
Covers

Domino WIGCD469; LP: WIGLP468XM

Chan Marshall *aka* Cat Power has a singular voice that encompasses the melancholic twang of country and the grittiness of the blues. On these covers, she digs deep into the lyrics, transforming The Pogues' 'A Pair Of Brown Eyes' from a boisterous drinking song into a hymn of desire. With a taut rhythm section and dissonant guitar buzz, 'The Endless Sea' surpasses Iggy Pop's version, but the album's loveliest moment is Nico's 'These Days' her voice accompanied by sweetly picked guitar. *Covers* ends with a reading of Billie Holliday's 'I'll Be Seeing You', but it's a testament to Marshall's charismatic delivery that ultimately they all sound like Cat Power songs. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

WORKING MEN'S CLUB

Fear Fear

Heavenly HVNLP203CD; HVNLP203C

Still only 20, Sydney Minsky-Sargeant wrote about the downside of teen life in the Calder Valley on the group's acclaimed self-titled 2020 debut. Here he has broadened his approach, seeking to make uplifting music with dark, if compassionate, lyrical themes of loss and turmoil. He achieves this balance on the neo-electropop of 'Widow', although on the title track synths whirl like sirens and the compressed, drum machine-powered sound feels like it's inches from your face. They get rockier on the New Order-ish, guitar-driven 'Cut' and this compelling album concludes with a drive off into some unknown zone on the lengthy, mantric 'The Last One'. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

FONTAINES DC

Skinty Fia

Partisan PTKF3016-2; LP: PTKF3016-1

The Dublin band's third album looks at Irish identity from different angles, starting with 'Ár Groithe Do Deo' ('In Our Hearts Forever') – a brooding incantation with sombre vocal chorales. Singer Grian Chatten's raw poetry is forefronted on the title track as he surveys a doomed relationship, and on the haunting 'Bloomsday', with its references to James Joyce's Dublin. His hard-edged vocals create excitement, although they can be testing, but on 'Nabokov' they are set in a vortex of distorted guitars albeit sweetened by female backing singers. The single 'Jackie Down The Line' is a more melodic take on the group's propulsive rock, with guitars giving background colour. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

THE BLACK KEYS

Dropout Boogie

Nonesuch 0075597913439; LP: 0075597913576

The Black Keys are 20 years old and the reason for the duo's continuing success is they have rhythmic chemistry, songwriting chops, and while tapping down into the blues-rock motherlode, they always sound fresh. ZZ Top guitarist Billy Gibbons guests along here with fellow six-stringers Greg Cartwright from Reigning Sound and Angelo Petraglia from Kings Of Leon. On 'It Ain't Over' they come over like Steely Dan moonlighting in a blues bar and 'Burn The Damn Thing Down' is galvanised by fuzz guitars. Black Keys have been described as 'America's most trusted band', which doesn't sound too exciting in itself, but it is when they deliver albums like this. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

ANIMAL COLLECTIVE

Time Skiffs

Domino WIGCD501; LP: WIGLP501

Animal Collective have been described as 'experimental' pop, but 'intuitive' is more apt. They started as a school band in Baltimore in the '90s making an expressionist racket, and while they have kept refining their music, they have preserved their exploratory approach, with influences as diverse as folk, psychedelia and horror film soundtracks. *Time Skiffs* has greater sonic clarity than their 2009 breakthrough *Merriweather Post Pavilion* and all the songs are set within in an intricate, colourful soundscape of guitars, keyboards, electronics and samples. Their joyous vocal arrangements, reminiscent of The Beach Boys and The Turtles, shape some sublime melodies, particularly 'We Go Back' and 'Prester John'. *MB*

Sound Quality: 95%

0 - - - - - - - - - 100

ROCK

SUN'S SIGNATURE

Sun's Signature

Partisan PTKF3015-1 (LP)

In 2001, I was given a sneak preview of an album by former Cocteau Twins vocalist Elizabeth Fraser and her partner Damon Reece, with the caveat that there were problems; and it looked like it might never get finished. I heard no more. Fraser, one of the most gifted singers of her generation, guested on other projects and released three singles, but at last the duo have delivered. Only 30 minutes long, it's a thing of rare beauty. Fraser sings towards the top of her register and relishes the space in the music, weaving through a mesh of electronics, clarinet and harps on 'Bluedusk', and on 'Golden Air' she navigates the guitars and rotating drum patterns, singing sublime multi-tracked chorales. Welcome back! *MB*

Sound Quality: 90%

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MARCONI UNION

Signals

Just Music TAO065; LP: TAOLP065

The enigmatic Mancunian instrumental trio purvey an atmospheric mix of rock and electronica, which, over the last two decades, has ranged from motoric propulsion to ambient drift. Here they show the influence of the mesmeric drumming styles of Can's Jaki Liebezeit and Tony Allen, who played with Fela Kuti. They also sought to achieve a song-like structure in these compositions. It's a welcoming and immersive sound made from sweet guitar lines, electric piano melodies and ethereal synthesisers. 'Strata' glides along smoothly in an appropriately linear manner, while the 8m 'Breaking Point' serenely pivots around some lovely guitar chord changes. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

ROBERT PLANT AND ALISON KRAUSS

Raise The Roof

Warner 0190296672194; LP: 0190296672200

Plant and Krauss recorded *Raising Sand* as a kind of experiment, but the country artist and the former Led Zeppelin vocalist have a wonderful chemistry, and this selection of country, folk and more is a beauty. The songs are empathetically arranged and played, and producer T Bone Burnett gives it all a warm, inviting sound. On Lucinda Williams's 'Can't Let Go' they sing in unison, their harmonies evoking memories of Gram Parsons and Emmylou Harris on *Grievous Angel*. Bert Jansch's 'It Don't Bother Me' has a sinuous eastern feel with sonorous bass and silvery mandolin. Krauss sings lead in the verses and Plant joins her in the choruses to breathtaking effect. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

HOWLIN RAIN

The Dharma Wheel

Silver Current SC47CD; LP: SC47

Gram Parsons coined the phrase 'Cosmic American music' to describe the mix of country and psychedelia played by The Flying Burrito Brothers in the '60s, and it's a good fit for West Coast combo Howlin Rain. Guitarist Ethan Miller has a seasoned, timeless voice and his songs hark back to the era of The Grateful and The Allman Brothers, but with a vision of the future where synths and his own unhinged guitar solos take flight alongside fiddle and pedal steel. The 16-minute title track opens with radiant piano lines and vocal harmonies before gearshifting into a clavinet groove (like the funky part of Pink Floyd's 'Echoes') and resolves in an epic finale. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

MICHAEL ROTHER AND VITTORIA MACCABRUNI

As Long As The Light

Grölnland CDGRON258; LP: LPGRON258

Rother was guitarist in '70s Krautrock group Neu! whose music had an irresistible momentum, as if it were heading towards a 'vanishing point on the horizon'. On his first album with Vittoria Maccabruni the duo drive off at speed on 'Edgy Smiles', with it's chiming keyboards and Rother's trademark smoothly distorted guitars, but they also take diversions onto strange bumpy back roads, as on 'Curfewed' with its syncopated beats and dark churning synths. Maccabruni only sings on the haunting 'You Look At Me' but her looped, fragmented voice over the noir-ish guitar twang on 'CodriveMe' is spectacularly strange. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

WARPAINT

Radiant Like This

Virgin/Heirlooms HEIR001CD; LP: HEIR001LP

The all-female Los Angeles quartet's first album for six years was recorded remotely and the result is an atmospheric set full of subtle instrumental and vocal layering. On 'Hips' the arrangements and harmonies are typically intricate. The chiming guitars on 'Hard To Tell You' evoke the Cocteau Twins, and Emily Kokal's yearning vocals soar above Jenny Lee Lindberg's ebullient bass lines. Warpaint are influenced by hip-hop, which can be heard in their animated drums and synthetic percussion grooves, but their dreamy melodies are the antithesis of that genre. And unlike the more shadowy tones of trip-hop, this album is expansive and full of light. *MB*

Sound Quality: 90%

0 - - - - - - - - - 100

TIM BOWNESS

Butterfly Mind

Inside Out 194399737828; LP: 19439973791

The former No-Man singer celebrates 40 years of making music and his seventh solo album features cameos from prog legends Peter Hammill on vocals, Ian Anderson on flute, and ex-Magazine keyboards man Dave Formula. Bowness always sounds like his voice is gently glancing off the surface of the music, while typically exploring themes of disquiet and loss, particularly on 'Glitter Fades'. Mixed by Steven Wilson, this is one of his most varied releases. There's some sturdy but stately rock, skeletal funk and synth pop, and the immersive 'It's Easier To Love' is redolent of David Sylvian in its wandering sax and backdrop of sumptuous synthesised strings. *MB*

Sound Quality: 85%

0 - - - - - - - - - 100

TEARS FOR FEARS

The Tipping Point

Concord 7240412; LP: 7240413

Tears For Fears are no strangers to collaboration, but a management plan to have their first album since 2004 written with other songwriters, 'almost by committee', stalled the project. Starting afresh, they recorded the rather uncharacteristic, rootsy opener 'No Small Thing', but what follows has the mix of structural complexity and sweeping melodies and harmonies that characterised the duo's heyday. This comes across strongly on the title track, which is based on an intricate electronic template by Charlton Pettus. Roland Orzabal sings lead on the urgent, synth-driven 'My Demons' and Curt Smith's voice soars sweetly through the wide-open spaces of 'Stay' on this impressive return to form. *MB*

Sound Quality: 95%

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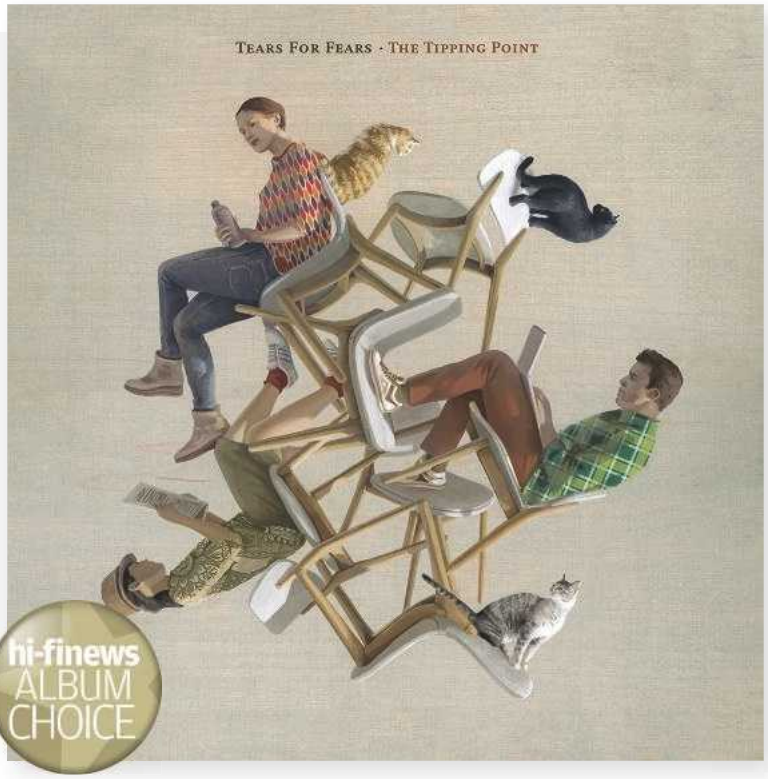
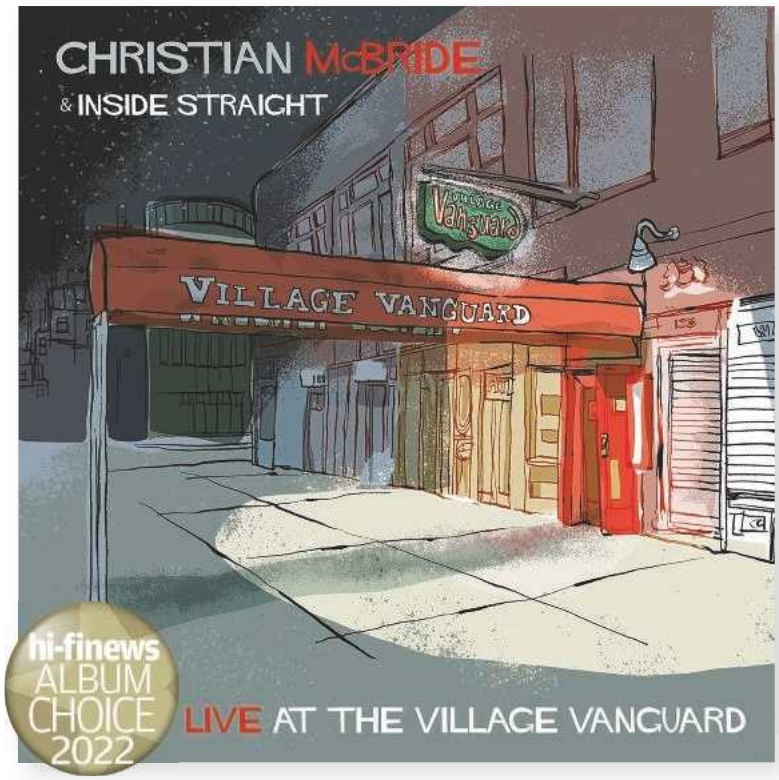


JAZZ



CHRISTIAN McBRIDE & INSIDE STRAIGHT

Live At The Village Vanguard

Mack Avenue MAC1192; LP: MAC1192LP

Supreme in many genres, the great bassist got back to straight-ahead jazz with this aptly-named quintet in 2007, enlisting Freddie Hubbard bandmate Carl Allen on drums, pianist Eric Reed, saxophonist Steve Wilson, and dazzling newcomer Warren Wolf on vibes. *Kind Of Brown* (2009) was followed by *People Music* (2013), with Peter Martin now on piano. The band returned annually to the Vanguard, where this album was recorded in 2014, and it's a treat to hear them live. They're tight and exciting right to the end, when McBride is astounding in the bass-and-drum feature 'Stick & Move'. This music can be deemed old-school after all that's happened in the last seven years, but it leaps out as fresh as tomorrow. *SH*

Sound Quality: 95%

0 - - - - - - - - - 100

JOEY ALEXANDER

Origin

Mack Avenue MAC1198; LP: MAC1198LP (two discs)

Making his international debut aged 11, the young Balinese pianist was championed by Herbie Hancock and Wynton Marsalis, going on to play Carnegie Hall, The Newport Jazz Festival and The White House. Now comes his sixth album, all original music themed on the seasons and thoughts of the future. As with 2020's *Warna*, it features bassist Larry Grenadier and drummer Kendrick Scott. But this is more than a trio album as there are contributions from guitarist Gilad Hekselman and saxophonist Chris Potter, who offers a sensitive and beautiful solo in 'On The Horizon'. Both guests return for the crisp and energetic 'Winter Blues' – more like winter sunshine. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

LYNNE ARRIALE

The Lights Are Always On

Challenge Records CR7532

With a title quoting the words of one dedicated doctor, this collection of new pieces was inspired by him and by 'all front-line health care workers', and it's offered in memory of the pianist's late husband. But along with the deep and moving title track, there are celebrations of others 'who stood up for what is right' in difficult times. 'Honor' is for Lt Colonel Alexander Vindman, axed by Trump after testifying in the first impeachment hearing, while 'Walk In My Shoes' is for civil rights activist and Congressman John Lewis. Bassist Jasper Somsen and drummer E J Strickland provide the perfect accompaniment, in music that quietly consoles and heals. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

JOHNATHAN BLAKE

Homeward Bound

Blue Note 3843190

Drummer and composer Blake's credentials include a stint of 15 years in Kenny Barron's trio and many recordings as a key sideman. This album is a striking debut for Blake and his Pentad quintet. It's pretty much an all-star lineup, as saxophonist Immanuel Wilkins and vibraphonist Joel Ross have already broken through with their own Blue Note albums, and they're joined by pianist David Virelles and bassist Dezron Douglas. They start brilliantly with the stunning, life-affirming 'Ana Grace', named for the young daughter of saxophonist Jimmy Greene who perished in the Sandy Hook school shooting, and follow through with great playing right to the end. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

TERENCE BLANCHARD

Absence

Blue Note 3844264

In the summer of 2021, Blanchard could look forward to the Met premiere of his opera *Fire Shut Up In My Bones*. He could also look forward, at last, to touring in support of this long-promised new album: a homage to his major influence, Wayne Shorter. Like 2015's *Breathless*, it features the composer/trumpeter's E-Collective fusion band, whose bassist David Ginyard wrote the striking and Shorter-esque title piece. But it also features the strings of the genre-crossing Turtle Island Quartet, heard on their own in mid-album with leader David Balakrishnan's sombre and absorbing 'The Second Wave', then rejoining the others for Shorter's 'When It Was Now'. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

MARQUIS HILL

New Gospel Revisited

Edition Records EDN1190; 2LPs: EDNLP1190

Winning the 2014 Thelonious Monk prize brought the Chicago-born trumpeter and composer a Concord contract, and his 2016 album *The Way We Play* covered some jazz standards – unlike his recordings on the Black Unlimited Music Group label, which all feature his own music. It's the material from his 2012 debut, 'New Gospel', that he revisited in this Dec '19 live recording, with a great new band. Saxophonist Walter Smith III is supreme, intense and caressing by turns, while vibraphonist Joel Ross and pianist James Francies both astound. With Harish Raghavan on bass, Kendrick Scott on drums, they co-create Hill's music with passion, clarity and brilliance. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

HIROMI

Silver Lining Suite

Concord 7228067; LP: 7228603

When Hiromi's US tour was cut short by the pandemic in March 2020, she returned to Japan. After a series of live stream solo concerts, she came up with the idea of a classical piano quintet. She asked violinist Tatsuo Nishie, concertmaster of the New Japan Philharmonic, to recruit three more string players and started writing music for them. The Suite is a journey through the emotions of the pandemic, from 'Isolation' and 'The Unknown' to 'Fortitude', while 'Uncertainty' reflects the re-imposition of restrictions in early 2021. It's amazing music, the virtuoso string players perfectly realising Hiromi's vision and allowing her to fly more freely than ever. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

OMAR + QCBA

Live At Last

Ubuntu Music UBU0100; LP: UBU0100LP

Not just a show but a celebration. When they took to the stage at the Jazz Cafe in May last year, these musicians hadn't performed together for a live audience in 15 months. QCBA, led by trumpeter Quentin Collins and saxophonist Brandon Allen, powered by the Hammond keys and bass pedals of Ross Stanley and propelled by the drums of James Maddren, had been performing with UK soul legend Omar for more than a decade before lockdown. Now they could steam through 'Essensual' and 'Syleste', both in Omar's 2001 album *Best By Far*, before working out on his early hit, 'There's Nothing Like This'. If you love jazz funk, organ grooves, wild sax solos and a good-time live experience, this is for you. *SH*

Sound Quality: 90%

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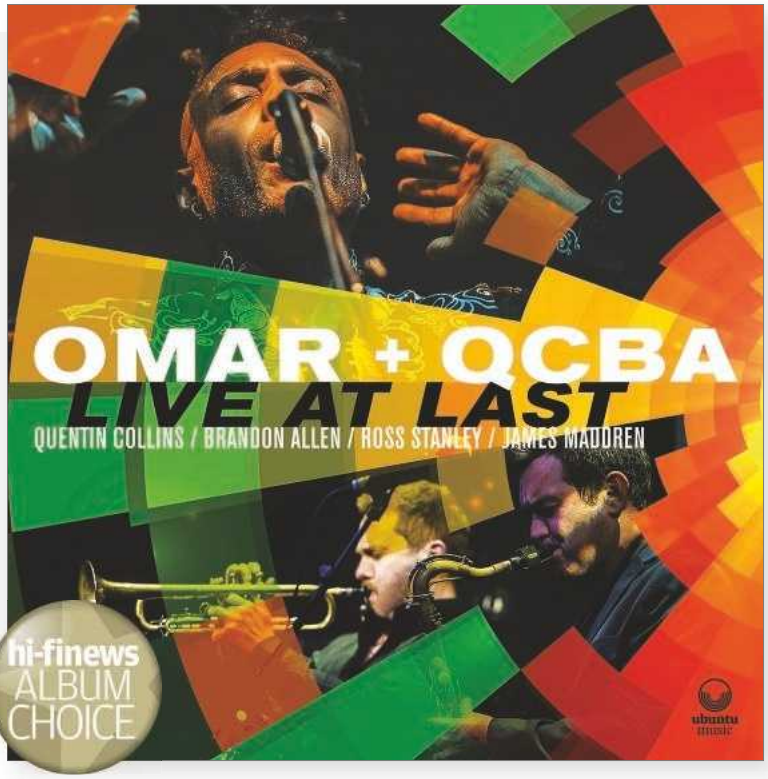

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DANILO PÉREZ FEATURING THE GLOBAL MESSENGERS

Crisálida

Mack Avenue MAC1178

Pianist, composer, educator and social activist Danilo Pérez shows us how diverse musical influences can be fused in the most positive way. He is founder and artistic director of the Berklee School of Music's Global Jazz Institute, and The Global Messengers, all graduates of the programme, are percussionist Tareq Rantisi (Palestine), laouto player Vasilis Kostas (Greece), violinist and vocalist Layth Sidiq (Iraq, Jordan), cellist Naseem Alatrash (Palestine) and singer Farayi Malek (USA). The album contains the two suites 'La Muralla' and 'Fronteras' which were toured in 2019 and reached UK ears at the London Jazz Festival, but are heard here beautifully recorded at Berklee. *SH*

Sound Quality: 95%

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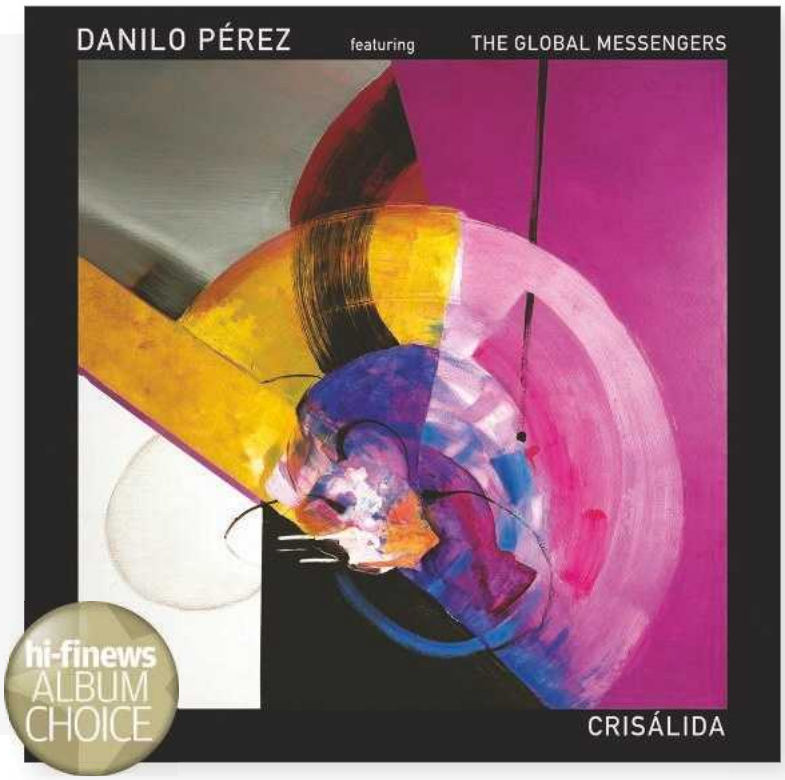

KAVUMA & THE BANGER FACTORY

Arashi No Ato

Banger Factory Records BF001 (CD and LP)

The Banger Factory collective was first heard on disc in 2019. This second album is the first release on the new label that trumpeter Mark Kavuma has formed and named after the band, recorded virtually live in the studio before the pandemic and now released, as that Japanese title infers, 'after the storm'. The music is warm and heartfelt and unusual guest spots include 'Love Will Find A Way', the 1921 Eubie Blake song, a feature for Sons Of Kemet tuba player Theon Cross. To close, Kavuma brought in a gospel choir with Richie Seivwright (trombonist/vocalist with Nubya Garcia) ably singing the lead on the Soul Stirrers' 'One More River'. Inspiring. *SH*

Sound Quality: 90%

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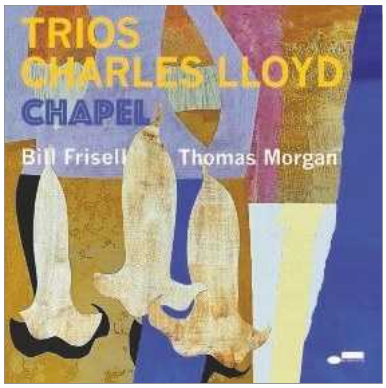

CHARLES LLOYD

Trios: Chapel

Blue Note 4526649; LP: 4526650

First in a 'Trio of Trios' each with different personnels, this is named for the venue where the players first came together. In 2018, Lloyd invited Bill Frisell, recently a member of his group The Marvels, to play a special concert at the Coates Chapel, San Antonio. The acoustic wasn't suitable for drums so he suggested Frisell's duo partner, the bassist Thomas Morgan. Frisell's penchant for embracing country, pop and other music happily matches Lloyd's lifelong eclecticism, but this is not foot-tapping music. In his late 80s, Lloyd's playing is still inventive while reaching new levels of serenity. He can't go on for ever but sometimes it seems that he might. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

FERGUS McCREADIE

Forest Floor

Edition Records EDN1197; LP: EDN1197LP

With last year's *Cairn*, the brilliant and innovative Scottish pianist harnessed his country's musical heritage and celebrated its landscape. This second album is even more dramatic, bursting with energy and building to full-on climaxes of exultant pianism, yet has its lyrical side too. In the title piece, opening with David Bowden's *arco* bass and a theme in the lowest registers, you feel the soft and ferny bed beneath your feet, while 'Morning Moon' conveys silvery tranquility and shimmering light with brushwork from drummer Stephen Henderson. By contrast, the urgent rhythm of 'Landslide' builds an almost unbearable tension. *SH*

Sound Quality: 90%

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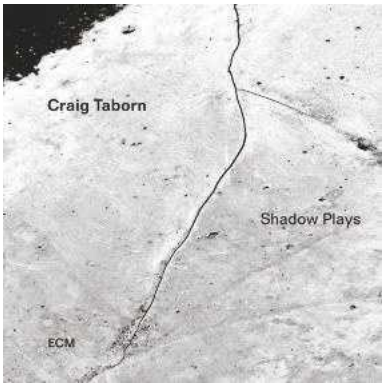


CRAIG TABORN
Shadow Plays

ECM 3819021

In a varied career, Craig Taborn has played with many kinds of groups but a solo concert tour in 2010 was followed by *Avenging Angel*, an ECM solo studio album. *Shadow Plays* was recorded live at the Vienna Konzerthaus in 2020 but, as Taborn puts it, it's 'part of the same continuum... that process of spontaneous composition goes onward'. His music is virtuosic, complex and dense-textured, offering for example an intense exploration of dissonance with 'Discordia Concors' and 'Concordia Discors'. Yet between these two pieces comes the wonderfully exhilarating 'Conspiracy Of Things'. A stunning piece of work, initially challenging but rewarding. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

MARCIN WASILEWSKI
En Attendant

ECM 6024 3810005 7 (CD and LP)

Together for more than 25 years, pianist Wasilewski, bassist Slawomir Kurkiewicz and drummer Michal Miskiewicz began as the Simple Acoustic Trio. Their debut *Komeda* paid tribute to jazz pianist and Polanski film score composer Krzysztof Komeda, and in the 2000s they made up trumpeter Tomasz Stanko's quartet. This beautifully recorded album, completed just before the trio's 2020 Joe Lovano collaboration *Arctic Riff*, is built around the three parts of the contemplative yet dynamic 'In Motion'. And from the trio's take on one of Bach's *Goldberg Variations* to Carla Bley's 'Vashtar' to The Doors' 'Riders On The Storm', the pieces in between range far and wide. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

IMMANUEL WILKINS
The 7th Hand

Blue Note 3832650; 2LPs: 3832750

Alto sax Immanuel Wilkins broke through spectacularly in 2020 with his debut as leader, *Omega*, which confronted the most horrific aspects of the black experience in America. Here once again, the musicians are pianist Micah Thomas, bassist Daryl Johns and drummer Kew Sumbry, and they sound completely unified, committed and purposeful. The seven pieces on the album form a suite that progresses towards 'the idea of being a conduit for the music as a higher power', and the title alludes to the biblical concept of the 'hand of the lord'. It's music that needs to be listened to from the start, right to the end of the 26m last movt, 'Lift', to bring balm to the soul. *SH*

Sound Quality: 90%

0 - - - - - - - - - 100

JOEL ROSS
The Parable Of The Poet

Blue Note 3891818; 2LPs: 3891819

In his third Blue Note release, the vibraphonist and composer offers an album-length suite, his themes providing for collective and individual improvisation within his innovative Parables band. It's an octet in which Ross's long-time alto sax collaborator Immanuel Wilkins and trumpet star Marquis Hill are joined by tenor saxist Maria Grand, trombonist Kalia Vandever, brilliant young pianist Sean Mason, bassist Rick Rosato and drummer Craig Weinrib. After the meditative first movement, 'Prayer', things darken through 'Guilt' and 'Choices' to the emotional cry of 'Wail'. But then comes the turning point of 'The Impetus (To Be And Do Better)' and at last the uplift and joy of 'Doxology (Hope)'. It's a beautiful journey. *SH*

Sound Quality: 95%

0 - - - - - - - - - 100

MITSUKO UCHIDA

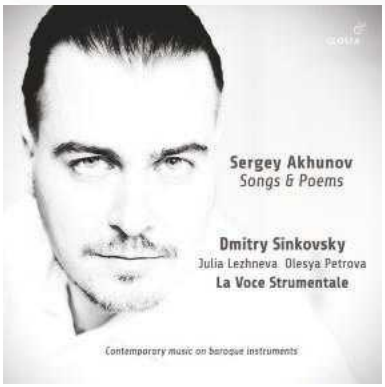
Beethoven: Diabelli Variations

Decca 4852731 (downloads to 96kHz/24-bit resolution)

There is a sublime humour about the *Diabellis*, like God laughing at his own jokes. Humour in music is notoriously even more elusive than in words. A joke thrown away is no better than one laboured over, and the *Diabellis* set traps for both brittle and lofty overstatement which Uchida negotiates at every turn in the airy acoustic of Snape Maltings. The physical effort and exhilaration is palpable. So is an exquisite sensibility that makes no more of a parody out of the opening march than the closing minuet. The fughetta is as tender and Bachian as the fugue is austere – and Bachian. Even in the flourishes of the *Figaro* parody, every single note tells in a remarkable feat of articulation. I wonder if Uchida has made a finer record. *PQ*

Sound Quality: 95%

0 - - - - - - - - - 100



DMITRI SINKOVSKY, LA VOCE STRUMENTALE

Akhunov: Songs and Poems

Glossa GCD924402 (downloads to 44.1kHz/16-bit resolution)

Born in Kiev in 1967, Sergei Akhunov writes music perpetually on the edge of saying goodbye in a post-Soviet idiom made famous by the Fifth Symphony of Silvestrov. Ghosts of Handel and Schubert also flit through these two song-cycles, yet Akhunov sounds like neither of them. Fans of the scores by Yared and Glass will find kinship in the gently evolving harmonic patterns; Schnittke enthusiasts will enjoy the spare textures and odd eruptions of violence. Sinkovsky, with his eerily disembodied countertenor, is often joined by sopranos Olesya Petrova and Julia Lezhneva for uncanny dialogues of love and memory. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

BENJAMIN ALARD

JS Bach: Complete Works for Keyboard Vol.5

Harmonia Mundi HMM902463.65 (three discs; also 96kHz/24-bit res)

This ambitious survey – organ and harpsichord works side by side – reaches Bach's Weimar years (1708-17) of apprenticeship and early mastery. Alard gives the perennial D minor *Toccata and Fugue* a virtuoso makeover without crossing boundaries of taste or the work's probable origins as a solo-violin piece. The 'Dorian' Toccata transfers to harpsichord without injury to its splendour or momentum, while the *Sei gegrüsset* Partita takes on new life as a relaxed meditation for clavichord. Whatever the instrument, Alard never sells the range of this music short: a confidence and improvisatory flair chimes with our ideas of Bach himself as a performer. *PQ*

Sound Quality: 90%

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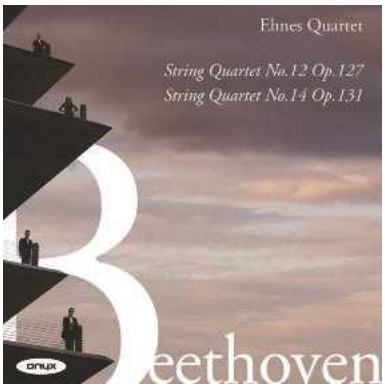

EHNES QUARTET

Beethoven: String Quartets Opp.127 & 131

Onyx ONYX4215 (downloads to 96kHz/24-bit resolution)

These players grasp that late and difficult needn't translate into a listener's assault-course. Their second Beethoven volume meets us halfway with the kind of well-rounded tone, full attack and finesse we associate with the finest Haydn performances. Without emulating 'period' sonorities, their graceful response to Op.127(i) keeps Beethoven's predecessors in mind before setting sail across the mystical waters of the *Adagio*. Warmth and patience are similarly winning qualities in Op.131. While they bring a combative intelligence to the obsessive *Scherzo*, their Beethoven is no wild-eyed prophet but finds moderation in the midst of struggle. *PQ*

Sound Quality: 95%

0 - - - - - - - - - 100

LE CONCERT DES NATIONS/SAVALL

Beethoven: Symphonies Nos 6-9

Alia Vox AVSA9946 (three SACDs)

Jordi Savall grasps the music beyond the notes: the spiritual calm after the Storm in No 6, the almighty din to launch No 9's finale, the earthy but elevated spirit of the contredanse to end No 7. The notes themselves are hardly less impressive: rustic clarinet, incisive timpani and a good-strength string section all making perfect sense of the composer's metronome marks, even in the flowing love-song of the Ninth's *Adagio*. Reticent trumpets in the 'Ode to Joy' are the only drawback to a crisp and resonant studio production made in the stone chapel of a Catalonian hill-fortress. Savall joins Mackerras and Brüggen at the top of the pile for a Beethoven cycle. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

LES SIÈCLES/FRANÇOIS-XAVIER ROTH

Debussy: Pelléas et Mélisande

Harmonia Mundi HMM905352.54 (three discs; downloads to 96kHz/24-bit res)

Conversational intimacy is the key signature of this studio but live-sounding production. A French-native cast is headed by Alexandre Duhamel's impulsive Golaud, unusually but convincingly youthful as an older brother to the artless Pelléas of Julien Behr. The intense fragility of Vannina Santoni's Mélisande makes a perfect foil to them both, like a butterfly in the swirling mist of Maeterlinck's symbolism. Even more striking and impressive is the palette of glowing colours from the period instruments of Les Siècles, shaded so lovingly by Roth's direction and paradoxically revealing the influence of Wagner. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

ENSEMBLE PRO VICTORIA/TOBY WARD

Fayrfax: Magnificat Regale, Salve Regina, *etc*

Delphian DCD34265 (downloads to 96kHz/24-bit resolution)

Various 'Eton Choirbook' albums since the 1960s have restored Robert Fayrfax to his rightful place among the early-Tudor masters of polyphony. The anniversary of his death in 1521 is as good an excuse as any to dig deeper – aided by intrepid research and ingenious completions – beyond the beautifully planed surfaces of the *Salve Regina* and the mesmerising intricacy of the *Magnificat Regale*. Even madrigals such as 'That was my woo' share the extravagant complexity of sacred feats of virtuosity such as the closing *Maria plena virtute*. Toby Ward draws subtly inflected singing from his young mixed-voice ensemble in a warm, close-grained recording. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

CLEVELAND ORCH/FRANZ WELSER-MÖST

Prokofiev: Sym No 2; Schnittke: Concerto for Piano and Strings

Cleveland Orchestra TCO0003 (SACD; downloads to 96kHz/24-bit resolution)

This third album from the Cleveland Orchestra's own label maintains the superlative technical standards of the first two – if there are more immaculate orchestral recordings being made right now, I've yet to hear them. But is this machine-age early-Soviet symphony (1925) really cut out for first-class finesse? Welser-Möst makes the most persuasive case, both in his programme note here and his direction which picks out Russian Orthodox and contrapuntal paths through the factory-floor of acrid dissonance. Yefim Bronfman is the coolly self-effacing soloist in Schnittke's 1979 concerto, unifying its disparate Baroque, Romantic and modernist-industrial idioms with (to me) revelatory assurance. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

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OSLO PHILHARMONIC/KLAUS MÄKELÄ

Sibelius: Symphonies 1-7, Tapiola, Three Fragments

Decca 4852256 (four discs; downloads to 96kHz/24-bit resolution)

The new Finnish chief in Oslo may still be in his 20s, but this is a set to reckon with, bold and consciously rhetorical from the off. Quarantine studio conditions imposed a 1.5m distance between musicians which may account for some curious balances, remote brass and spotlit solo lines. Or it could be down to Mäkelä's expressionist foregrounding of detail even in the broad sweep of No 2. He's consistently sound on accumulating momentum – the lifeblood of this music – which makes its unpredictable loss at the end of No 4 and in the Seventh all the more disconcerting. Moulded cantabile phrasing and French-accented sonorities advance a strikingly different 'Finnish' Sibelius from Berglund and Vänskä. *PQ*

Sound Quality: 95%

0 - - - - - - - - 100

BERTRAND CHAMAYOU

Messiaen: Vingt Regards sur l'Enfant-Jésus

Warner Classics 0190296196669 (two discs; downloads to 48kHz/24-bit resolution)

First up, the piano sound: wow! Damien Quintard is Currentzis's favoured producer, and he has engineered an ambience of sensational depth and impact from a new-build auditorium in Grenoble. It's a good fit for Chamayou's approach, which underlines the Lisztian nature of Messiaen's writing for the brilliant pianism of a young Yvonne Loriod: more at home in the brassy clangour of 'Noël' than the rapt stillness of 'Le baiser'. These are 'contemplations' that grapple with the awe and terror of an authentic faith: less conventionally prayerful than most but essential listening for Messiaen disciples and sceptics alike. *PQ*

Sound Quality: 90%

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PHILHARMONIA ZÜRICH/NIKOLAUS HARNONCOURT

Mozart: Serenade K361/Beethoven: Symphony No 5

Prospero PROSP0020 (downloads to 96kHz/24-bit resolution)

Surely the most searching 'Gran Partita' on record, and possibly the most eruptive Beethoven Fifth. It could only be Nikolaus Harnoncourt, an *enfant terrible* to the end in this 2016 'Farewell to Zurich'. You'll know if this is for you from the opening of 5(ii): halting, smiling, opening up and running on like a train of thought. Harnoncourt shifts the *Serenade*'s centre of gravity away from the *Adagio* and interrogates notions of both 'entertainment music' and symphonic unity (both trio and finale of the Fifth fly off the handle). You wouldn't want to hear the music like this every week, but you'll never listen to it the same way again. *PQ*

Sound Quality: 90%

0 - - - - - - - - 100

PETER DONOHOE, BBC SO/ORAMO

Pejacevic: Symphony; Piano Concerto

Chandos CHSA5299 (SACD; downloads to 96kHz/24-bit res)

Dora Pejačević's stock is rising in time for the centenary of her death, aged just 38, in 1923. The distinction of the 'first Croatian symphonist' would be meaningless as the work of another talented, well-trained and privately funded dilettante, were the piece itself not so impressive as an authentic expression of Wagnerism (think Chausson and Franck, even Bax, rather than Brahms or Bruckner). In the slow movement of the Piano Concerto, and elsewhere on this release, all roads lead back to Liszt: as they so often tend to in music of the early 20th century. Big-hearted performances, cannily recorded with plenty of Chandos-brand ambience at the renovated Fairfield's. *PQ*

Sound Quality: 90%

0 - - - - - - - - 100

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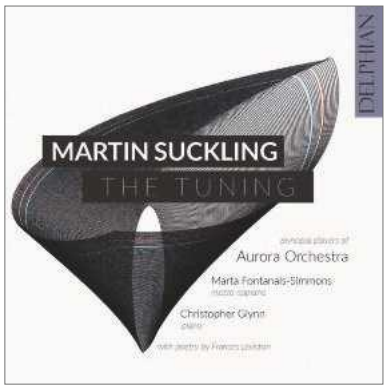

FONTANALS-SIMMONS, GLYNN, AURORA ORCHESTRA

Suckling: The Tuning, String Quintet, Her Lullaby

Delphian DCD34235 (downloads to 96kHz/24-bit resolution)

The music of Scottish composer Martin Suckling feels at home in many styles and none, embracing 'open' microtones, airy consonance and knottily naturalistic dissonance. *The Tuning* sets five poems by Michael Donaghy, intensely evocative of its themes of night and water, love and loss, and sleep, in the tradition of the great song-writers. A solo-cello *Lullaby* circles round and down to an elegiac core. There is something ancient and mysterious about a violin/cello *Nocturne* like a spell cast from folk wisdom, and the individuality of his string writing and engagement with poetry combine in a haunting string quintet. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

TONHALLE ORCH ZÜRICH/PAAVO JÄRVI

Tchaikovsky: Symphonies 1-6, *etc*

Alpha ALPHA778 (five discs; downloads to 96kHz/24-bit resolution)

Forget about Swiss clockwork: compared to the LPO under Jurowski – the pre-eminent modern rival – the Tonhalle's playing is a touch messier but more exciting, and more vividly recorded. The dramatic sweep and palpable affection which Järvi brings to No 3 should win new friends for the Cinderella of the cycle. He catches the expectant momentum of No 1, the sense of Tchaikovsky in the symphonic laboratory, as well as nailing the unique forms of Nos 4-6. Järvi's Tchaikovsky doesn't mess around with the scores. The *Pathétique* lives on the edge of its nerves without fussy intervention, sharing the Fourth's plain-spoken but fiery rhetoric. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

ANTOINE TAMESTIT

Telemann: Viola Concertos, Overtures, Fantasias

Harmonia mundi HMM902342 (downloads to 96kHz/24-bit res)

Our biggest problem with Telemann is knowing where to drop the needle: all those TWV numbers! The virtue in this collection is variety: the soulful introspection of a G major Concerto becomes a space for reflection between a convivial 'Ouverture-burlesque' and a knotty *Canonic Sonata* for two violas. The Akademie für Alte Musik Berlin pour out the phrases like a good host with the bottle. Tamestit sounds fully at home with a Baroque bow – and gut strings, to judge from the throaty, close-up viola tone. He digs deep into a solo *Fantasia* before duetting with an AAMB colleague in a delicious concerto for two violas. *PQ*

Sound Quality: 90%

0 - - - - - - - - - 100

HALLÉ/SIR MARK ELDER

Vaughan Williams: Symphonies Nos 7 & 9, Lark Ascending, *etc*

Hallé CDHLD7558 (two discs; downloads to 44.1kHz/24-bit resolution)

The final volume of Elder's VW maintains the high standard of the cycle as a whole, and surpasses it in the *Sinfonia Antartica*, engineered (Bridgewater Hall) with exceptional attention to VW's orchestral illusions of space and distance. Elder is well attuned to the symphony's heroic/tragic aspirations as well as the Francophone transparency of its quick writing. He imparts a traditional nobility of gesture to the more elusive form and gleaming, urban soundworld of the Ninth in the boxier acoustic of the orchestra's St Peter's rehearsal home. Is the piece a set of elegies for past times and glories (VW's own) or a combative statement of intent and postwar renewal? Elder allows you to decide for yourself. *PQ*

Sound Quality: 95%

0 - - - - - - - - - 100

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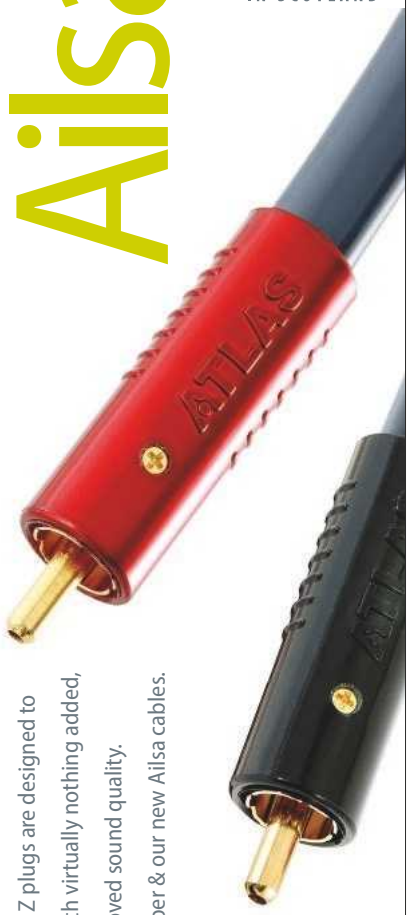

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ALMARRO 318B SET. £650 spent a few years ago on service and new power valves. Asking £950 ono. East Leeds area. Email: ram_electrical_leeds @yahoo.co.uk

NAGRA MSA power amplifier. Boxed and accessories. Collection only from BR3 5TL. £4400. Email: time2gojb@gmail. com. Tel: 079731 32199

300B 12W-per-channel valve amp, single-ended, in excellent condition but one of the 300B valves will need replacing, hence price of £450. Cash on collection only. Located in Crewe, Cheshire. Tel: 07708 431963

3. CABLES

AUDIENCE Au24 interconnect, 1.5m pair, mint, £450. LiveLine speaker cables, 2.4m bi-wire, mint, £1305. LiveLine power cord cable, 1.8m x 3, mint, £495 each. Email: mark@markjhanna.co.uk

4. CD/DVD PLAYERS

MARANTZ CD6007 CD player, brand new, boxed and unopened. Black, £350. Tel: 07526 838951

CEC TL5 transport. Brand new, double boxed, remote control, owner's manual, 230V, UK spec. £2250. Tel: 07967 815604. Email: blade@bladeforlife.com

EAR Acute 3 CD player. Excellent condition, boxed. £1850. Tel: 07305 871175

5. DACS

CHORD Qutest DAC with original box, in excellent condition, barely used. RRP £1350, offered at £1000 ono. Surplus to requirements as I have a streamer DAC. Collect from Harrow Borough, London, or can post. Tel: 07588 543123

AUDIOQUEST DragonFly USB DAC, black, V1.2, pre-loved and in excellent condition. Only £40 ono! Tel: 0161 3685549

MARANTZ CDA-94. Very good condition. £750. Tel: 07305 871175

7. SPEAKERS

LIVING Voice Auditorium IBX-R2 speakers in Black Ash. Immaculate condition – no marks whatsoever. Original boxes. £1800 ovno. Tel: 07905 312191

SONUS faber Toy bookshelf speakers. Made in Italy, leather finish, in very good condition. Boxed, £650 ono. Collection only, near Boston Lincolnshire. Free Atacama stands. Tel: 01205 280869

MORDAUNT Short 40th Anniversary Performance 6 speakers in Gloss Black finish. Collection only, BR3 5TL. £1500. Tel: 079731 32199. Email: time2gojb@gmail.com

KLIPSHORNS full, pristine condition in light oak, domestic lounge use only from 2014. £6000 ono. Dem/collection mid Derbyshire. Tel: 01773 831830

MORDAUNT Short Festival Series 2 speakers, £50, good condition, no front covers, vintage wooden teak. Buyer to collect from Bath area. Tel: 07900 248060

B&W 801 D4 flagship speakers. Brand new and still in opened boxes. £26,000 ono. Estate sale. Tel: 07765 107110 Email: dakersvictor@outlook.com.

QUAD ESL 988 speakers, matching pair in black. Downsizing forces sale. Superb condition, full service history, sound wonderful. £1000. Collection but may deliver for cost of fuel. Tel: 01827 284023

FOCAL Kanta N°1 speakers and dedicated stands. Immaculate condition. Desirable high-gloss black finish. Purchased new September 2020. Still under warranty. With manuals, accessories, packaging and boxes. Wonderful sound. £3200. Email: alansdowne@spinnaker-global.com. Tel: 07971 315826

9. TURNTABLES

SME Series IV tonearm. Unused since SME service and upgrade to current specification, and fitted with FD-IV fluid damper. As new condition with box and all tools. £2650. Tel: 07305 871175

VPI Classic 30th anniversary turntable, JMW 10.5 arm and Dynavector DV-20 XL cartridge, unused from new. £2650, dem/collection from mid Derbyshire. Tel: 01773 831830

12. MISCELLANEOUS

RECORDS all 78s and all in sleeves. 14 of 10in pre-war. Approx 30 of 10in post-war. Some 12in. HMV 10in record album, empty. £30 the lot. Buyer collects (East Berkshire). Tel: 01344 776445

STAX SRM-D10 portable rechargeable energiser £600. SR-003 MK2 in-ear headphones. £200. Less than 30 hours' use, both items boxed. Collection only preferred. Location near Boston Lincolnshire. Tel: 01205 280869

ICON Audio CDX1 CD player, Revox B77 Mk II reel-to-reel tape deck, Michell GyroDec SE turntable plus tonearm, cartridge and cover. All items are in excellent condition and all are for sale at half price. Email: davidgoyns@gmail.com. Tel: 07508 192540

FALCON LS3 cabinet kits only £60, pair of Vifa P13 5in mids £70, pair of Dynaudio 17W75XL £100, offers for Revox 77 service manual, Leak Deta 30/70 manual, pair of Nuvistor valves in Eddystone case. Buyer collects from Bristol NW, Email: info@oakfieldonline.com

NAIM NAC D3.5 CD player, Naim NAIT 3 amp (fully updated), two Naim Flat Caps, Naim NAP 90, pair of Rega Ela speakers. All reasonable offers accepted. Tel: 07918 906497

MUSIC Tools ISOstatic shelf, 27.5cm plus 38cm. I have two of these available for sale, £650 each. Email: mark@markjhanna.co.uk

13. WANTED

FERROGRAPH Series Seven pinch wheel. Tel: 01543 372169

WILSON Audio Sasha DAW loudspeakers. Tel: 07815 194772. Email: amd.2112@hotmail.co.uk

AUDIO Innovations Series 300, 400 or 500 integrated amplifier. Tel: 0113 2579043

TECHNICS RS-1500 tape recorder with remote control, service manual, instruction book. Also seeking a Uher SG 631 tape recorder. Tel: 01902 870605

LUXMAN EQ500 phono stage in good condition and with manual. Email: neilbaxterbrown@gmail.com

CYRUS 1 amplifier in mint condition. Offers welcome. Email: remibalestie@yahoo.fr

LECSON Lynette LB1 in any condition. Have been looking for ages. Tel: 07939 116779

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OFF THE LEASH!

KEN KESSLER TELLS IT LIKE IT IS...

Ken Kessler reckons this past year has challenged some of his long-held notions about hi-fi...

Hi-fi shows are have returned, masks are off – well, sort of, to be blunt. My gut feeling, especially having just read an article about how employees at Apple are refusing to give up work-from-home, is that recovery will take much longer. Although I doubt the 'old normal' will return, audiophiles are defying the malaise and may actually benefit from the changes in societal behaviour.

KNOCKED OUT

Not that I am espousing an eremitic existence. The upside for us is that an increasing number of people are spending more time at home which, in an ideal audiophile world, might result in increased interest in audio equipment, which is a good thing. Axpona in the USA, the return of the Tonbridge Audiojumble, the success of the Munich event and a cluster of others all exhibited the release of bottled-up enthusiasts' passion, desperate for an outlet.

Whatever was going on in the outside world, this was a knock-out year for me regarding the hardware which found its way to my system. My delight in the return of Lowther was not dimmed by the initial speaker, the Almira [*HFN* Nov '22], being in need of some tuning. All bodes well for the brand, from the positivism of the new owners to an impressive heritage to enclosure construction and finish that had one rival manufacturer wondering 'Who are Lowther's chippies?' Roll on a 21st century Bicor 200 model, says I.

Audio Research's I/50 integrated amplifier [*HFN* Oct '22] knocked me out with its sheer completeness. It looks like no other amp. There's a choice of colours to make it domestically acceptable. The sound is blissful. The technology is clever, especially the nifty display. The price is sane by high-end standards. The only thing I would ask for is a tad more power, but trust me: with a pair of BBC LS3/5As, such as Falcon Acoustic's delightful 'Gold Label' version, or any horn speaker (*eg*, the amazing, smaller Klipsch models), this could be the heart of an apartment-dweller's dream system.

> 'This could be the heart of a dream system'

CENTRE RIGHT

From the sublime to the borderline insane: it took me a while to wrap my head around DS Audio's ES-001 Eccentricity Detection Stabiliser [*HFN* Nov '22]. Scepticism has, increasingly, dominated my reaction to most 'Things Audiophile', having survived Harmonix, Peter Belt, Tice, the cable wars, green CD edging, AC cable influence, polarity inversion, bi-wiring and countless other distractions. I no longer believe anything until I experience it first-hand, without a proselytiser present to provide subliminal or blatant suggestion. If there is a caveat, it is that you never know when something seemingly absurd turns out to be valid.

LP concentricity has never bothered me – at least it didn't until I heard the improvements on certain types of music, achieved with arguably extreme hands-on solutions which might involve reaming out the centre hole in a precious LP. But DS Audio never fails to dazzle me, though I doubt I can find £5000 to buy one.

PEAKY BLINDERS

Pro-Ject came up with not one but two blinders, the first being the debut of its automatics. The Automat A1 [*HFN* May '22] heralds the return of audiophile-approved automatics for a massive demographic not prepared to jump up every time a side ends. Probably more noteworthy years from now will be the X2/Phono Box S3 B combination [*HFN* Sept '22]. which revealed how much *true* balanced operation from stylus to preamp adds to the sound.

Still with turntables, Vertere's SG-1 [*HFN* Aug '22] flagship was an absolute joy – and responsible for a massive surprise. As one who swears by clamps or vacuum hold-down, I was rocked by Vertere's philosophy which proves that the opposite works, too. As far as food for thought goes, along with upending my prejudices or exposing gaps in my experience (see DS Audio, above!), the deck was a real ear-opener. It also reminded me that bias should be restricted to tonearm and tape deck set-up...

Speaking of tape decks, my constant harping about open-reel tape has been vindicated. The rumour mill is a'buzz with gossip about a few more companies mooting the production of brand-new machines to join Ballfinger and Metaxas. One of them, from Revox, appears still-born, despite computer-generated images which showed a sleek machine reminiscent of the model made for Thorens by Ballfinger. I have also heard whispers of at least three major manufacturers considering the development of decks, one a returnee maker of decks and two who would be new to the field.

As ever, there were losses this year, and I will sorely miss the recently-departed Max Townshend, Miura-San of Air Tight and other trailblazers and personalities who enriched our lives. Oh, to eavesdrop on them in that listening room up in the sky...

Dec issue on sale 18th NOV

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